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THE COTTAGE GARDENER,

AND

COUNTRY GENTLEMAN'S COMPANION.

A JOURNAL OF HORTICULTURE, RURAL AND DOMESTIC ECONOMY, BOTANY,
AND NATURAL HISTORY.

CONDUCTED BY

GEORGE W. JOHNSON, ESQ., AND ROBERT HOGG, ESQ.

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TO OUR READERS.

If brevity be the soul of wit, then this our half-yearly address may be very witty, for it will be very short; but we rather incline to the suspicion that the brevity has for its cause the absence of anything new to say.

The continued expression of our gratitude is now more than seven years old; and as old is it for us to be able to say, truthfully, that our pages are our best evidence of continued and successful exertions to collect before you the records of the useful, the excellent, and the beautiful, connected with the cultivation of the soil, and the comfort of the household.

We say this without being open to a charge of self-landation, for the chief merit of such success belongs to those who have contributed to us their mental harvests.

Looking to the future, we can say, as we have often said before, and never without redeeming our promise, we have abundance in store, and preparing, which we have confidence will continue to retain to us the panygeric—"This Periodical is the most independent, and most useful that can be read by all ranks of Garden-keepers, Poultry-keepers, and House-keepers."

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WEEKLY CALENDAR.

D M	D W	OCTOBER 2-8, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
2	Tu	Sphodrus collaris.	30.073-29.851	74-36	S.W.	—	3 a 6	36 a 5	9 10	☾	10 32	275
3	W	Scaphisoma agaricinum.	29.793-29.736	65-31	W.	—	5	34	10 11	22	10 51	276
4	Th	Staphylinus oleus.	29.856-29.694	62-52	S.W.	—	7	31	11 21	23	11 9	277
5	F	Alcochara impressa.	29.585-29.510	71-50	S.W.	01	8	29	morn.	24	11 27	278
6	S	Mycetophagus undulatus Boleti.	29.571-29.491	58-47	N.E.	52	10	27	0 33	25	11 45	279
7	SUN	18 SUNDAY AFTER TRINITY.	30.080-29.869	59-42	E.	—	12	25	1 44	26	12 2	280
8	M	Lunar Hornet Moth.	29.960-29.847	60-52	S.E.	03	13	22	2 56	27	12 19	281

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 62.0°, and 42.8°, respectively. The greatest heat, 80°, occurred on the 5th, in 1834; and the lowest cold, 27°, on the 2nd, in 1853. During the period 101 days were fine, and on 95 rain fell.

THE FRUITS AND FRUIT-TREES OF GREAT BRITAIN.

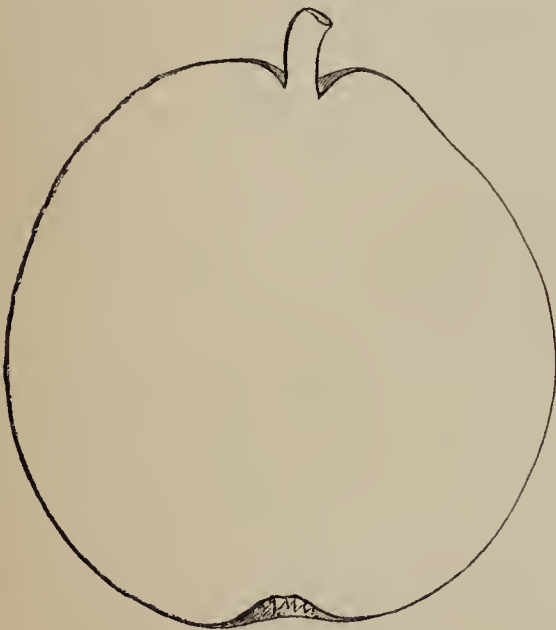
NO. VI.

THE SECKLE PEAR.

IDENTIFICATION.—Coxe's View, 189. fig. 25. Hort. Trans. iii. 256. Hort. Soc. Cat. ed. 1. n. 552. Lind. Guide. 383.

SYNONYMES.—Seckel, Hort. Soc. Cat. ed. 3. 390. Down. Fr. Amer. 415. New York Red Cheek, Hort. Soc. Cat. ed. 1. 432. Red-cheeked Seckle, Acc. Pom. Mag. Sytle, Ibid. Sicker, Bon. Jard. 1848. p. 499. Shakespeare, of some continental catalogues.

FIGURES.—Hort. Trans. iii. t. 9. Pom. Mag. t. 72.



By the time this is before the eyes of our readers, the delicious fruit which we now bring under their notice, will, in some of the earliest situations, be in perfection. Although it is now nearly forty years since it was introduced to this country, it cannot be said to be very generally cultivated. Here and there one meets with a place where its name has been known, and its merits appreciated, but as a generally-known variety it has not yet attained the position it ought to occupy. We trust that this notice may induce many of our readers to add it to their collections during the next planting season; and those who do, we feel assured will never have reason to regret that they took our advice. It may be said to be the most richly-flavoured Pear in cultivation.

The fruit is small, generally produced in clusters of two or three, and of an average size of about two inches long, and the same in width; our figure was taken

from rather a large specimen, and is above the average, many of them not being larger than the Green Chisel. It is regularly and handsomely-shaped, obovate, or ovato-turbinate. The skin is at first generally of a dull green colour, with brownish-red on the side next the sun, changing as it ripens to yellowish brown on the shaded side, and bright red on that exposed to the sun; but sometimes it is considerably covered with pale brown-russet. The eye is very small and open, with short, erect, black segments, and placed almost on a level with the surface of the fruit. The stalk is about half-an-inch long, inserted in a small and shallow cavity. The flesh is tender, melting, and buttery, very juicy and sugary, with a rich and unusually powerful aromatic flavour. It ripens from the beginning to the middle of October, in the southern counties, and perhaps a fortnight later in the northern. It is well to gather it a few days before it ripens on the tree, otherwise it will not keep long; and after being gathered, close attention should be given to it, that it may not become mealy before using.

The tree is very hardy, a free and vigorous grower, and an abundant bearer. It succeeds well as a standard; but according to some it does not thrive on the Quince stock; of this, however, we have had no experience.

The Seckle Pear is of American origin, and is first noticed by Coxe, an American Pomologist, in his "View of the Cultivation of Fruit Trees." It was sent to this country in 1819, by Dr. Hosack, of Philadelphia, along with several other fruits, to the garden of the Horticultural Society. The original tree is still in existence, and is growing in a meadow in Passynuk township, about a quarter of a mile from the Delaware, opposite League Island, and about three miles and a-half from Philadelphia. It is nearly a hundred years old, and about thirty feet high. The diameter of the trunk, at a foot from the ground, is six feet; and five feet from the ground it is four feet nine inches. The trunk is hollow, and very much decayed; the bark, half way round, to the height of six feet, is entirely gone; and so far has the progress of decay advanced, that, it is feared, in a few more years the tree will have ceased to exist. There are, however, young suckers growing from the root, by which the original stock will be preserved; but it is to be regretted that some means were not taken to preserve the original tree, as by a very simple process of plastering up the decayed portion the progress of decay might be arrested. The property on which the tree stands belonged, in 1817, ac-

according to Coxe, to Mr. Seckle (not Seckel) of Philadelphia, and hence the origin of the name. Downing says, "the precise origin of the Seckel Pear is unknown. The following *morceau* of its history may be relied on as authentic, it having been related by the late venerable Bishop White, whose tenacity of memory is well known. About 1765, when the Bishop was a lad, there was a well-known sportsman and cattle dealer in Philadelphia, who was familiarly known as "Dutch Jacob." Every season, early in the autumn, on returning from his shooting excursion, Dutch Jacob regaled his neighbours with Pears of an unusually delicious flavour, the secret of whose place of growth, however, he would never satisfy their curiosity by divulging. At length, the Holland Land Company, owning a considerable tract south of the city, disposed of it in parcels, and Dutch Jacob then secured the ground on which his favourite Pear-tree stood,—a fine strip of land near the Delaware. Not long afterwards it became the farm of Mr. Seckel, who introduced this remarkable fruit to public notice, and it received its name."

We have thought proper to adopt the orthography of the name as given by Coxe, in opposition to that of the Horticultural Society's Catalogue, which Downing follows; because Coxe resided at Philadelphia, and must have known whether Mr. Seckel spelt his name *Seckle* or *Seckel*; and as the only reason assigned for altering it is, that *it is supposed*, Mr. Seckle was of German descent, and there is no name known among the Germans spelt *seckle*. In our opinion, not a sufficient plea for the alteration, in opposition to the authority of Coxe.

CRYSTAL PALACE.—19TH SEPTEMBER.

As I had chosen the middle of September, last year, for examining the details of the first planting of the flower-gardens at the Crystal Palace, and in order to have the means for a just comparison between the first and second planting, I had no choice left me this season for the time of my annual visit of inquiry into the progress of the art, as exemplified by the planters at this grand national establishment. You cannot fairly compare a flower-garden in June, July, or August, with the same flower-garden in September.

If the season has been favourable, like the present, a flower-garden ought to be at the highest pitch of brilliancy from the 10th of August to the 10th or 20th of September; and certainly, at the time of my visit, the flower-gardens here were in splendid bloom, and in the highest order of good keeping. You could not see a dead flower, a broken-down plant, a yellow or curled leaf, or a yard of grass, or gravel, which was not as smooth, and short, and clean, as if the whole garden had been "gone over" that morning on purpose for some grand party.

Below the grand terrace there are four times more flowers this season than were there last year, and there are many additions to the kinds of flowers in use, the most telling of which are the *China Asters* and the *Dahlias*. At a rough guess, I should say there are between two and three thousand Dahlias planted there this season. All the shrubberies and fronts of plantations were alive with them.

I do not know a single individual connected with these gardens, after Sir Joseph Paxton, who is now only

a consulting oracle to the firm, therefore, there can be no "confederacy" between them, or any of them and your humble servant; still, I have the satisfaction to be now able to report, that everything in the arrangements of the plants and planting with which I was not particularly well pleased last year, has been changed this season: not, however, from anything that I said against them,—which was very little, and will be found in our volume for this time last year,—but from the *palpability*, if there is such a word, of the errors themselves.

There is a great deal of improvement in the planting of the different parts below the grand terrace from what the planting was last year, and there is a considerable departure from last year's arrangements on the terrace garden; however, it is no improvement, but rather the contrary. I have no idea who decides on the different arrangements of plants and colours here for the season; but, from the disposition of the colours, particularly this season, I am certain that no lady is on the committee, and I never yet knew a man who could grasp so much without some slight mistakes during the first few years; but to balance that, there is no system of flower-gardening so good, in the long run, as that system which a clever man undertakes at his own risk and responsibility, because he is constantly alive to its improvement in every way in which the situation, the soil, the aspect, and the various tribes of flower-garden plants will assist him.

There is one radical error, or an error of principle, in the planting of the two great chain-patterns this season. Last year there was an error of taste, if you will allow the expression, in this part of the chain, and I alluded to it in my report; I mean, the connecting band, which is two feet wide and three feet long, being planted with the *Emma* Verbena, the beds which were thus connected being in scarlet and yellow. These beds are just the same as they were last year; but the black or dark purple band is dropped, and *Tom Thumbs* are used instead; that is, two large flower-beds on the right of *Tom Thumb* are joined to two large beds ditto on the left, by the very plant which forms the ground-colour of every bed in a chain, which may be 300 yards long! This is the first time, in my experience, that I have met with a plant, which is the real plant for the situation, destroying a given design. A gold chain is a gold chain all the world over, and it is made of many patterns, still, every link of it is of gold, whatever the sizes may be. On this principle the chain-pattern at the Crystal Palace is planted this season; every link in it is of the same metal, and the large links are inlaid with yellow. Last year, every third link was of steel, and I suggested frosted silver instead; but, certainly, if it could be so managed, every link should be (as it now is) of the same metal, and by being so the character of the chain is destroyed. The plants in the narrow bands which connect the beds are as tall as the plants in the beds themselves; this turns the chain into a rope, and no one who did not see the pattern last year could believe that it is what it is, a chain-pattern, instead of a continuous rope with swellings at regular distances. Apart from all idea of the ground pattern, and looking at the thing as a mass of rich colouring, nothing could be more richly gorgeous; and if the present planting will be repeated, there is a way of doing it without breaking the character of the pattern. The narrow stripes which connect the main beds must be planted with the smallest late spring cuttings of *Tom Thumb*, and the ground must not be so rich as that of the beds. Then, by stopping, the young Toms may be kept low enough to mark these narrow divisions as distinct from the main beds, and the pattern will be understood at once by any one.

After all, I still hold to my first impression, that the

connecting bands ought to be white; and I would either use the variegated *Alyssum*, or *Mangles' variegated Geranium*, for that purpose. As the *Tom Thumbs* do so well here, and come so readily to a uniform surface, or "face," I would prefer the *Alyssum*, as doing the same more perfectly and with less trimming during the season. There is nothing in all our flower-gardens which answers more perfectly, or look better, than the "ring-beds" hero round the massive pedestals. I said as much about them before they were planted last spring, and I then recommended that style for universal adoption; and now, I would appeal to any lady who has studied such things, and who has seen those beds, if they are not at the same time the most economical and the most beautiful and telling of all the beds in this beautiful garden, or in any garden whatever.—Crimson rings, of uniform thickness and of even surface throughout, with a delicate line of deep blue, much lower than the body of the ring, intervening between the gorgeous crimson, or scarlet-crimson flowers of *Tom Thumb* and the *Green Sward*, with massive white stone pedestals in the centre, on a proportionate circle of grass within the ring.—(See page 68 of Volume XIV.)

Soon after describing what these beds would be, at that page, a lady asked me if such a bed would look well on gravel, but unfortunately, at that moment I was heart and hand engaged on an interesting lean-to roof against an Ivy wall, and said No, without collecting my thoughts, then on the Ivy. I never saw a ring-bed on gravel; but I have since studied the subject sufficiently to be able to say, decidedly, that a ring-bed, with scarlet flowers, will look far better and more telling on gravel than on grass; but a deep blue edging would not be so well on gravel, as it is now at the Crystal Palace, namely, *Lobelia ramosa*. I can tell, however, from seven long years experience of the past, that the *Golden Chain* Geranium is, of all other plants, the best edging near the gravel; and the tint of the leaf of the *Golden Chain* is so fortunate as to suit almost any colour in a bed, and that of *Tom Thumb* the best of all; therefore, if you have a Venus, or a Pallas, or a Juno, or Flora, or Pomona, standing up on a pedestal, and on gravel, pray put a ring-bed of *Tom Thumb* round the figure, and an edging of the *Golden Chain* round that; but, first of all, edge the ring inside and outside with dwarf Box; the proper proportions, according to my eye, and according as they are laid down at the Crystal Palace, you will find at the said 68th page of Volume XIV.

I entered, this time, at the bottom of the colonnade, in the south wing, as you come from the London Bridge Station; that colonnade is about as long as from my house to the Kingston Station, and looks to the north-east, or nearly so; the back wall of it may be about twenty feet high, with a four-feet border, then a broad stone pavement wide enough to let ten, or twelve, or more walk abreast. Then, there is upright glass, between you and the garden, as high as the back wall, and the top is of glass, on the ridge and furrow plan. On the 20th of last April, when I was last in this colonnade, the back wall was trellised for climbers, and the earth, or bed for the border was filled in; but there were no plants planted out, recollect; and recollect, also, and do not forget it as long as you live, or the height of the back wall either,—twenty feet or more,—almost every inch of all this height and great length was covered by the 19th of September; and yet no fire, no forcing, no close glass, and no old-established plants, but sheer good gardening, good soil, good air and water, and a vast deal of good stopping and training. Thus, then, is one of the greatest problems in gardening solved here, and nowhere else, at the first start. A conservatory wall, twenty feet high, and as long as from here to Balmoral, may be planted with young plants in such a way as that in the neighbourhood of London, and they

will cover it, from one end to the other, in one summer season. I have seen Mushrooms got up to "order," by a damp heat of from 90° to 96° day and night; and I have seen the same hands sow seeds of Mustard and Cress, which, in seven minutes-and-a-half, had the green blades ready to mix in the salad; but such feats are as nothing to the rapid covering of this colonnade with climbers.

I began at the bottom, and numbered the plants for about one-third of the length; and I shall here give the names of the first sixty plants, just as they stand on this wall, to show young beginners how the duplicates come in, and to let all see the kinds of plants which have been used. After that, I shall not mention the duplicates, but I shall make, here and there, such observations on some of the plants as struck me at the moment.

At the very bottom, No. 1, is *Wistaria sinensis*, the *Glycine* of olden times, quite hardy, of course, up to the very top; 2, *Maurandya Barclayana*, full from the border to the very top, and wide-spread; 3, a *Camellia*, quite young, and the first permanent plant—not being a climber; 4, *Heliotrope*, very bushy, fragrant, and healthy, and five feet high; 5, *Calampelis*, or *Eccremocarpus scabra*, to the very top, and wide-spread right and left; 6, Tea-Rose, *Devoniensis*, just under an alcove, or niche in the wall—no doubt intended for a bust; 7, White Ivy-leaf *Geranium* (*Geranium* is on the label), very high up, and well-spread; 8, *Geranium compactum*—scarlet bedder, profusely in bloom; 9, *Fuchsia corallina*, six or seven feet high, glossy, and in the highest luxuriance; 10, *White Maurandya*, even higher, and as wide as the blue one; 11, *Brugmansia arbuscula*.—What on earth is this? It is not in bloom; and I never heard of it before. It has very large, soft leaves, just like a *Clerodendron* of the *fallax* breed, and I suspect the name; a bold-looking plant, however, as tall as a man, and very healthy. 12, *Clematis viticella*—a hardy one, in full bloom, and nearly to the top of the wall; 13, *Heliotrope*; 14, *Lophospermum spectabilis*. It is speckled in the flowers; the meaning of the name is not otherwise apparent; a tremendous grower, and covers a great way. 15, *Camellia reticulata*, very young, and very wise to plant it so for a permanent; 16, *Fuchsia Don Giovanni*, the boldest of the race; 17, *Clematis cerulea grandiflora*, hardy, yet far better on a protected wall; 18, *Heliotrope*; 19, *Scarlet Geranium*, of the Shrubland Scarlet breed; 20, *Fuchsia Actæon*, of the *gracilis* form,—this seems a favourite here, judging from the number of it planted on this wall; 21, *Passiflora Newmaniana*, of the *racemosa* section; not in bloom, but fills well; 22, *Loasa tricolor*, in full bloom,—about twelve feet high, and of good spread; flowers orange, on long footstalks, leaves sting like nettles, it is showy, and makes a good variety among so many—same style and same treatment as the *Lophospermum*; 23, *Shrubland Scarlet Geranium*, which would reach the top in five years, if it could be saved in winter; 24, *Wistaria sinensis* again; 25, "*Geranium hederifolium roseum*" the name, an off-hand translation of "Pink Ivy-leaf *Geranium*" which is the true *Pelargonium lateripes roseum* of authors, and therefore one of the true Ivy-leaf, but not the pink Ivy-leaf of the flower-gardens. *Aiton's Pelargonium peltatum* is the truest Ivy-leaf of all the *Geraniums*, and is the true pink Ivy-leaf bedder; while *lateripes roseum* is a much faster climber than the White Ivy-leaf, and is totally unfit for bedding-out; but it makes a splendid climber in a good greenhouse, running as wild as a *Tacsonia*, and flowering as freely as *Tom Thumb* after the pride of youth is subdued, when the flower-tufts and colour are so much better than out-of-doors: it was beautifully in bloom at the Crystal Palace. There are six varieties of *lateripes* and two of *peltatum*—the green and the variegated—all the eight are Ivy-leaves, and two of them being pink Ivy-leaves, one a bedder, the other a climber, it will be neces-

sary to distinguish them as such to avoid the confusion which is justly complained of by Mr. Fish, at page 72 of this volume; *peltatum* being his Cup Ivy-leaf in that article, both variegated and plain leaf. 26, *Lophospermum spectabilis*; 27, *Fuchsia Actæon*; 28, *Plumbago capensis*, a fine wall-plant; 29, *Heliotrope*; 29, *Clianthus puniceus*, one of our very best wall plants; 30, *Lophospermum Hendersonii*, the best of the varieties; this covers a great space above the dwarf plants; 31, *Acacia grandis*, one of the best of the small globular-flowering and small-leaf section; 32, *Fuchsia Actæon*; 33, *Cobæa scandens*, —at last— the fastest growing climber in the catalogue; 34, *Jasminum nudiflorum*, perfectly hardy, but should be under glass in winter, to make the best of it while in bloom; 35, *Compactum Geranium*; 36, Tea-Rose, *Madame Russell*, a large white flower, with a blush centre; 37, *Maurandya Barclayana*; 38, *Magnolia fuscata*, one of the sweetest flowers in the garden, and a real back wall of a greenhouse plant; 39, *Fuchsia Actæon*, a bold hunter, by-the-by, who had the impudence to surprise Diana one day while she was bathing; but the goddess turned him into a stag, and his hounds ran after him, yelping like furies. I once knew all their names, but no matter, they devoured him at last, and it "served him right." 39, *Heliotrope*; 40, *Clematis Hendersonii*, a beautiful single blue, and quite hardy; 41, *Aristolochia siphon*, also quite hardy, and which ripened seeds in Surbiton this season; strange there should be two hardy climbers of such opposite characters within four feet of each other; all the plants are not much more than four feet apart; 42, *Maurandya Barclayana*; 43, *Jasminum nudiflorum*; 44, double *Nasturtium*, as we say; 45, *Acacia pubescens*, which grows as fast and as large as a moderate Weeping Willow, and much after the same fashion after a while; 46, a seedling from the *Shrubland Scarlet Geranium*; 47, *Calampelis scabra* again; 48, *Azalea indica*, the variety called *laterilea purpurea*; 49, *Compactum Geranium*; 50, another Tea Rose called *Charles Reybaud*, a large blush flower; 51, *Jasminum nudiflorum*; 52, *Datura arborea*, alias *Brugmansia arborea*, which grows to a medium-sized tree; 53, *Maurandya rosea elegans*, a lovely climber, when well done, as it is here; 54, *Rosa Hardii*, a Tea Rose, not in bloom, and I do not know it to tell what the bloom is like; 55, the true *Shrubland Scarlet Geranium*, here called *Smith's Emperor*. Mr. Smith was a tenant of Sir W. Middleton's, and had his first cuttings of this *Geranium* from *Shrubland Park*, and changed the first and proper name. 56, *Wistaria*, or *Glycine sinensis*; 57, *Lophospermum spectabilis*; 58, *Camellia Donckelarii*, which is there spelled *Donkelarii*, though it is not the right way; 58, *Clematis flammula*, the sweet-scented, and one of the hardiest of them; 59, *White Maurandya*; 60, *Rose Fabier*, a little bedding Rose of the dwarf China class, and very gay for popping out here and there, and for filling up blank spaces under and between climbers.

D. BEATON.

SALE OF MRS. LAWRENCE'S PLANTS. — These were disposed of by the hammer of Mr. J. C. Stevens, on the five days extending from the 18th to the 22nd of September, and all of them realised good prices. There were about 331 lots of Orchids, and these realised not far from £950, being nearly three pounds per plant. The following were some of the highest-priced lots:—

	£	s.	d.
<i>Ærides virens superba</i> , fine specimen	4	10	0
<i>Dendrobium albo sanguineum</i> , fine plant ..	5	10	0
<i>Cattleya Mossiae superba</i> , fine specimen	6	0	0
<i>Phalænopsis grandiflora</i> , very fine specimen..	14	10	0
<i>Vanda tricolor</i> , fine specimen, two feet high ..	5	0	0
<i>Saccolabium guttatum</i> , very fine variety.....	5	10	0
<i>Cattleya Mossiae superba</i> , good specimen	5	0	0

	£	s.	d.
<i>Vanda suavis</i> , fine plant	6	5	0
<i>Dendrobium Devonianum</i> , fine plant	5	0	0
<i>Cattleya labiata</i> , large specimen	11	0	0
<i>Phalænopsis grandiflora</i> , fine plant	8	0	0
<i>Saccolabium guttatum</i> , good plant	10	10	0
<i>Angræcum caudatum</i> , very fine plant	6	0	0
<i>Ærides affine</i> , fine plant	6	10	0
<i>AMHERSTIA NOBILIS</i> , very fine specimen	10	10	0
<i>Trichopilia suavis</i>	5	5	0
<i>Lælia purpurata</i>	5	15	0
<i>Saccolabium guttatum</i> , splendid specimen, new var.....	31	10	0
<i>Dendrobium Devonianum</i> , splendid specimen	10	0	0
<i>Chysis bractescens</i> , very fine plant	5	10	0
<i>CYPRIPEDIUM LOWII</i> , fine plant	8	8	0
<i>Dendrobium Farmerii</i> , fine specimen.....	8	0	0
<i>Saccolabium curvifolium</i> , fine plant.....	9	10	0
<i>ÆRIDES LARPENTE</i>	14	0	0
<i>Vanda tricolor</i> , good specimen	6	0	0
<i>Saccolabium ampullaceum</i> , good plant.....	12	10	0
<i>SACCOLABIUM REEDII</i>	9	10	0
<i>Epidendrum macrochilum album</i> , fine plant	6	10	0
<i>Cattleya elegans</i> , fine plant	7	15	0
<i>Trichopilia tortilis</i> , large specimen, summer-flowering var.....	8	0	0
<i>Odontoglossum citrosimum</i> , very fine specimen	12	0	0
<i>Phalænopsis grandiflora</i> , the plant that Mr. Kinghorn showed so fine	17	0	0
<i>Ærides maculosum</i> , very fine plant	13	10	0
<i>Dendrobium anosmum</i> , good plant	12	0	0
<i>Ærides quinquevulnerum</i> , very fine specimen	15	15	0
<i>PHALÆNOPSIS AMABILIS</i> , splendid specimen ..	27	6	0
<i>VANDA SUAVIS</i> , TRUE, very good specimen	22	1	0

Of the Greenhouse and Stove Plants, many of them very familiarly known by the public as Exhibition Plants, there were about 580 lots. The largest prices realised, were the following:—

	£	s.	d.
Two plants of <i>Rhododendron jasminiflorum</i>	4	10	0
<i>Erica Massonii major</i> , fine plant	2	4	0
<i>Erica oblata</i> , true, fine plant	2	0	0
<i>Pimelia spectabilis rosea</i> , fine plant	2	12	6
<i>Pimelia Hendersonii</i> , fine plant	3	3	0
<i>Eriostemon intermedia</i> , finest in the country	5	10	0
<i>Hovea Celsii</i> , fine plant	4	0	0
<i>Chorizema Lawrenceana</i>	2	4	0
<i>Eugenia Ugni</i> , new plant, fine	1	13	0
<i>Azalea Perryana</i> , finest in the country	11	0	0
<i>Genetyllis tulipifera</i> , fine plant	3	7	6
<i>Boronia serrulata</i> , fine plant	4	5	0
<i>Gompholobium polymorphum grandiflorum</i> .	3	15	0
<i>Azalea Juliana</i>	5	0	0
<i>Azalea exquisita</i> , a splendid plant	6	0	0
<i>Azalea semi-duplex maculata</i>	4	4	0
<i>Azalea vesta</i> , fine white	3	3	0
<i>Adenandra fragrans</i>	4	15	0
<i>Erica Cavendishiana</i>	4	0	0
<i>Ixora coccinea</i>	2	5	0
<i>Curcuma Roscoeana</i>	2	8	0
<i>Allamanda grandiflora</i>	2	10	0
<i>Lilium giganteum</i> , 3 plants	6	6	0
A collection of Sikkim <i>Rhododendrons</i>	13	0	0
<i>Araucaria Bidwellii</i>	3	5	0

ORNAMENTAL PLANTS FOR A LOBBY.

(Continued from Vol. XIV. page 466.)

ARRANGEMENT.

On the east side of the lobby, most of that part beyond the entrance is marked *pannel*, so I apprehend that it is wood. Now, if there was a large window there it would greatly help the plants towards the north end of the lobby, by giving them not merely more light, but a good command of the morning sun. With light on this side, a stand could be placed on the east side, and the whole arrangement would look more natural than if

the plants were confined to the south and the west side alone, more especially as the entrance to the hall is near the north-west corner.

I presume that, from there being a double row in the half-parallelgram stand, the plants are to stand singly on the stand, or stage, in the pots in which they are grown. There is much in general practice to recommend this; much in refined taste to effect a revolution in the whole affair. Instead of the half-parallelgram stand, I should have preferred several separate stands, circular or otherwise, to be arranged in the body of the lobby, so as to afford easy access to the hall, and, at the same time, give the greatest justice to the plants. I have no doubt, that as taste in these matters improves, we shall have stands made of zinc, or galvanised iron, with a sort of double bottom, so that plants may be set in them and covered up in their pots by moss, or planted; out into the soil at once, the double bottom affording an opportunity of drawing off all the surplus water, or drainage, without spilling a drop in the room. Such baskets, or vases, might be formed of any pattern, or shape, and be painted and varnished to suit any room, or boudoir.

Nothing can be more unsatisfactory than the way in which flowering-plants are now arranged in rooms, entrance halls, lobbies, &c. The stage of our correspondent may be a good exception; and yet the speaking of the stand holding two rows of plants, leads me to think that these two rows are plants standing in the red pots in which they were grown. Now, the more finished the lobby is, the more it is ornamented, the more out of place will the red pots be. Just place a plant on a table in such a place in its own legitimate earthenware pot, and another plant, in all respects similar, in a vessel in harmony with the colouring and furniture of the room, and then no seer's vision is requisite to foretell which you would like best. The huddling of plants into rooms, balconies, and lobbies, the cramming of them, even with cut flowers, when there is not a particle of use for them, unless it be to *nettle* the gardener, and keep his cogitating powers ever on the rack of invention, are some of the proofs of a thorough want of unity of expression and refined taste which yet obtain amongst us.

Not so long ago, I saw some good plants in a splendid drawing-room, set upon tables inlaid with precious wood, and still more precious and rare stones. A huge saucer was set beneath the pots, and as if it was felt that there was something out of character in the huge red pot, it was covered all over with a layer of moss, and thus formed a nice plant, seemingly rising out of a moss hill, and this artificial-looking moss hill itself rising from the centre of a still more artificial splendid inlaid table. Oh! for the pen and pencil of *Punch* to sweep such incongruities from the mansions and halls of old England. How shockingly stilted the whole affair seems. How different all would appear if the plant was encased in a vase, or basket, in harmony with the walls and furniture of the room. A lady, just to show to what extra refinement would lead, has had flower pots with their plants elevated on the tops of poles some ten feet in height, and thinks the idea a grand one, a poor fellow being obliged to shoulder a ladder to give refreshers to pots that would have been infinitely more at home on *terra firma*.

I lately visited a snug little place, and found it in first-rate order. The flowers were actually growing in at the window, and yet I could perceive the sitting-room was filled with cut flowers, which were twenty times more at home outside the window. It is high time that this Gothicism, that will imagine that sticking every conceivable bloom in a flower-glass, and in all conceivable circumstances, should have a hint, that instead of showing extra refinement, there is a decided ten-

dency to the selfish and the barbarous. I have walked through rooms beautifully furnished, and found them extra supplied with flowers in the most vulgar and first comeatable-looking vessels; but the rooms were foetid with the putrifying water, because the climate in which the cut flowers were placed was not changed often enough, and the lower part of the flower-stalk was not removed every or every other day. A short time ago, I saw another place, where the greenhouse was contiguous to, or rather a part of, the mansion; the flower-garden came close up to the windows, and yet in the parlour-window was a deal, green-painted stand, supplied with small pots, standing in red saucers, next door neighbours to fine muslin curtains, and the most handsome furniture. A relish for natural objects might render such things endurable in a crowded city—in a country place nothing, but a defective taste—a total disregard to everything like unity of expression—could ever enable a man or woman of any reflection to tolerate, far less encourage, such incongruity for a moment. Just think of the walls of a room covered with damask or satin paper, and the tables and chairs formed of plain deal; or rustic oak, taking us back to the days of the hut, or the servants' hall in a squire's mansion;—you would at once say, how inconsistent—how incongruous; and yet, hundreds and thousands will have their elegant rooms defaced and deformed with stages of green-painted boards, and plants stuck upon them in dirty, red, unpainted pots, and the possessors all the time imagining that they are giving a tone to social progress and elevated refinement.

I feel much obliged for the trouble our gallant correspondent has taken in sending a plan of his lobby; and, as a proof of that obligation I feel, I would advise, that when the present stage is worn-out, or disapproved of, some half-dozen or more of tasty baskets, or vases, some three or four feet in diameter, may be substituted, so that they may be moved backwards and forwards at pleasure, and means taken that the water should not find its way to the floor. The present stand has too much of the common greenhouse character. In my humble opinion, the plants in a lobby or in the rooms of a house should be arranged quite differently, and in each case in unison with the fixed establishments of the room. In a lobby, zinc baskets of a sober tint would do. In a drawing-room, one of the very best China, or painted to represent it, would not be a particle too fine. When I have an opportunity of visiting a place, the garden, of course, is my hobby. I seldom go inside of a mansion unless it would be downright discourtesy to refuse, especially if told there are some fine plants in some of the rooms. In such cases, I have often been gratified; but in most cases the incongruity was so painful that I was glad to get outside.

What a Goth! some will exclaim. Well, I can't help it. I rest contented and sure that the true Vandalism will ere long be apparent, and that, as a consequence, flowering plants will appear in drawing and sitting rooms in a costume suitable to the circumstances. Some time ago, I mentioned how Mr. Fleming got so far over the difficulty, by having boxes with evergreen backs of Ivy—the boxes being lifted out at pleasure. There was thus an evergreen background, and that was a great point. But, strange as it may appear, these fine mahogany boxes I do not consider fine enough for fine plants in fine rooms. Get stands and vases in character with the rooms, and I guarantee that in the estimation of gardeners, at least, the plants will do honour to their receptacles. I hope to live long enough to see every common pot banished from every lady's room, or, at least, concealed by one more elegant and suitable.

R. FISH.

HARVEST HOME IN NORFOLK.—Last year an attempt was made in the parish of Brooke to put an end to the system of public-house harvest feasts, in which neither the wives nor the children of the labourers can join, and in which excesses of a gross description too often occur. The attempt has been repeated this year, and has been eminently successful, not only in regard to those immediately concerned, but as an example to other parishes in the county. On Friday last the festival was held at Brooke. Divine service commenced at 2 o'clock, and the church was crowded in every part, many being obliged to stand in the porch and churchyard for want of room within the walls. At the conclusion of evening prayer, the vicar of the parish, without selecting any formal text, or preaching a set sermon, occupied a very few minutes in a simple and practical address. On leaving church, the party adjourned to the lawn in front of the Vicarage-house, where preparations of the most ample nature had been made for their reception. About 400 men, women, and children—the harvest men and their wives and families—sat down to a substantial repast of old English fare. Grace after dinner having been said, the toast of “the Queen and Royal Family” was right royally received. They were subsequently addressed by Mr. Holmes and Mr. Kett, the two resident and principal proprietors of the parish and neighbourhood, to whose ready and generous help Dr. Beal, the minister of the parish, was mainly indebted for the means of carrying out his plans and arrangements for the *fête*. Many of the clergy and families of distinction in the district were present and took much interest in the proceedings. The happiness and decorum of the whole party will not soon be forgotten by those who witnessed it. A good band of music enlivened the scene with a selection of old English and other familiar airs. Arches of evergreens, with devices of good taste and character in flowers, all planned and executed by some of the villagers, enhanced the gaiety of the scene. Among others was a laurel arch, spanning the entrance to the vicarage garden, crowned by a miniature sheaf of corn, and with a “harvest home” in moss and flowers. Another, which attracted much attention, was surmounted by a magnificent floral crown, supported by the national flags of England and France, and ornamented with the Royal cypher. In addition to this, the tables were decorated with remarkably fine specimens of hollyhocks and dahlias. The enthusiasm and good feeling of the party at the close of the addresses of their landlords, no less than the admirable tone of the addresses themselves, formed the subject of much remark among the many witnesses of this rural festival. Nothing occurred to mar the festivity of the occasion; and about 8 o'clock the whole party, which, including visitors of every description, must have exceeded 600 persons, dispersed quietly to their homes, listening, as they went, to the strains of the National Anthem, and delighted with the entertainment, and the events of the day, the arrangements for which had been personally superintended, from first to last, by Dr. and Mrs. Beal. Before they left, tea and coffee and fruit were served to the guests of the day and enjoyed by all. As the shades of evening began to close, a display of fireworks, prepared by an amateur professor of pyrotechnics in the village, terminated the festivities. The day will be long remembered in Brooke, and several parishes are on the point of imitating the example in different parts of the county. At the reasonable hour already named, the homes of the village were once more tenanted, and husbands, wives, and children, exhilarated, happy, and thankful, were preparing to retire to rest, once more to resume, with renewed cheerfulness and increased vigour, their labours and toils on the morrow.

NEW OR RARE PLANTS.

It is a matter of considerable importance to plant collectors and purchasers to know what to procure in plants that are really distinct and sufficiently beautiful and attractive, amongst the hundreds of new plants annually raised in, or imported to, this country. Many have already been described by Mr. Beaton, Mr. Fish, and myself, in the pages of *THE COTTAGE GARDENER*. I have many others in my note-book, and am waiting, in some cases, till I see more of their habits and worth before I recommend them. On this occasion, I have a rather numerous list that have proved desirable; and, as an opportunity offers, I give below a brief description of them.

Begonia echinata (Spiny).—Numerous as are the species of this useful genus, this is a desirable addition. From the East Indies, and now in the Chiswick Horticultural Gardens. It is, at present, a tiny plant, not more than four inches high, with small, heart-shaped leaves, covered with spines. The flowers are produced at the end of each shoot, and are of white colour, slightly tinged with pink. It is a little gem, and appears likely to increase freely both by seeds and cuttings.

Begonia opuliflora (Guelder-Rose-flowered).—A desirable plant, from South America. Leaves rather large; flowers pure white, with deep yellow stamens produced in flat corymbs, rendering it very handsome, and distinct from any other *Begonia*.

Begonia velutina (Velvet).—An upright growing, handsome, soft-wooded shrub, with rather small and numerous panicles of pale flesh-coloured flowers. Raised from seed in the Chiswick Gardens. Native of Orizaba, South America.

Calyptraria hemantha (Bloody).—A Melastomad, with noble, handsome foliage, and large, purple-crimson flowers, lasting longer in bloom than *Pleroma elegans*. From South America. Requires stove culture. There are few finer plants grown. It requires only to be seen to be desired by all lovers of fine foliage and handsome flowers.

Campanula lanceolata (Lance-leaved).—An interesting greenhouse climber, with bell-shaped flowers, greenish-yellow outside, and purple inside, spotted with brown. Native of Japan, and may, probably, prove hardy.

Cassiope fastigiata (Fastigate or Pointed).—A neat, charming little plant, from the higher ranges of the Himalaya Mountains. The leaves are small, bright green, and arranged like scales in four rows on the stem; flowers drooping like a small *Campanula*, and of a pure white colour. It is a hardy, woody shrub, and will thrive well in a shady situation, in cool, moist, peaty soil.

Cestrum Regelii (Regel's).—A tall-growing shrub, requiring a cool stove, or warm greenhouse. Flowers produced in drooping racemes, and of a bright orange-colour; very showy, lasting a long time when in bloom. From Guatemala, and a handsome addition to its class.

Clerodendron Bungei (Mr. Bunge's).—A hardy greenhouse species, from the north of China. Flowers rosy-purple, produced in flat corymbs, like the single *C. fragrans*, five to eight inches across. A fine plant for a glass wall, or glass house without fire. Few plants surpass it in beauty when well grown.

Embothrium lanceolatum (Lance-leaved).—A showy, very ornamental, large shrub, of compact habit, with long spikes of rich crimson flowers, produced at the ends of the shoots, high above the handsome foliage. Native of Chili, and one of the strikingly-magnificent plants that we receive now and then, ranking in beauty with such plants as *Clerodendron fallax*, and other such-like showy plants. Admirably adapted for a large con-

servatory. The handsome-foliaged *Lomatia ferruginea* belongs to this Order.

Gesnera Donckläriana.—A hybrid between the two allied genera *Gesnera* and *Gloxinia*, proving that they are not essentially distinct. It is said it was raised in the Ghent Botanic Gardens, between *Gesnera discolor* and *Gloxinia rubra*. It has the foliage and habit of the former, with the flowers of the form of the latter. They are rich crimson in colour, and are produced in large panicles on the end of each shoot.

Kohleria Wagneriana (Capt. Wagner's).—A very handsome gesneraceous plant, with crimson stems and tubular red flowers. Native of South America, and a worthy, manageable plant; evergreen, and of a good habit. Requires peat and leaf-mould, and the heat of a moderate stove.

Mandrolia Roezlii and *M. picturata*.—I know nothing of these two plants further than this, I saw them in flower in the Chiswick Gardens. They were sent there by M. Van Houtte, from Ghent. He stated, if I recollect right, that they had come up amongst some Orchids from South America. Be that as it may, they are two pretty plants, and, as they flower at this time of the year, they are an agreeable addition to our autumn-flowering stove plants. They are soft-wooded, evergreen, stove plants, with small foliage, and pretty, small *Gloxinia*-like flowers, produced abundantly from the axils of the leaves. The colour a pale pink. *M. picturata* is spotted and stained with a deeper hue. They are worth inquiring after. T. APPLEBY.

(To be continued.)

PROPAGATION OF THE ORANGE TRIBE.

(Continued from Vol. XIV., page 468.)

BY CUTTINGS.—This is the best method to obtain small, early-fruiting, handsome plants, especially adapted to grow in small pots and greenhouses of moderate dimensions. This mode was formerly much more practised in England and Scotland than at present. Mr. Henderson describes his success in the Caledonian Horticultural Memoirs so particularly and well, that I cannot do our readers a greater service than quoting his description of his method. He says, "Take the strongest young shoots, and also a quantity of the two-year-old shoots; these may be cut in lengths from nine inches to eighteen inches. Take the leaves of the lower part of each cutting to the extent of about five inches, allowing the leaves above that to remain untouched; then cut right across, under an eye, and make a small incision in an angular direction on the bottom of each cutting. When the cuttings are thus prepared, take a pot and fill it with sand; size the cuttings so that the short ones may be altogether, and those that are taller in a different pot. Then, with a small dibble, plant them about five inches deep in the sand, and give a good watering overhead to settle the sand about them. Let them stand a day or two in a shady place. Have a frame ready with a good bottom-heat, and plunge the pots to the brim. Shade them well with a double mat, which may remain till they have struck root; when rooted, take the sand and the cuttings out of the pots, and plant them into single pots in the following compost:—One part of a light brown mould from a piece of ground that has not been cropped or manured for many years; one part peat earth, such as is used for growing Heaths; two parts of river sand, or pit sand, if it be free from mineral substances; and one part of rotten hotbed dung, with one part of rotten leaves of trees. Mix them all together so as to form a compost soil of uniform quality. When all are potted off, plunge them again in the frame, and shade them

for four or five weeks, or till they are taken fresh root in the pot; they may then be exposed to the light. From various experiments, I found that pieces of two-year-old wood struck quite well; and in place, therefore, of putting in cuttings six or eight inches long, I have taken off cuttings from ten inches to two feet long, and struck them with equal success. Although I at first began to put in cuttings only in the month of August, I now put them in at any time of the year, except when the plants are making young wood. By giving them a gentle bottom-heat, and covering them with a hand-light, they will generally strike root in seven weeks or two months. The Citron is most easily struck, and is the quickest grown. I, therefore, frequently strike pieces eighteen inches long, and, as soon as they are struck and have taken roots in their new pots, they are grafted with other sorts which grow freely. I am not particular as to the time either of striking cuttings or of grafting."

Such is the very graphic and complete description given by the practitioner himself of this successful mode of propagating the Orange tribe by cuttings. I have nothing to add to it, except, that as every one may not have a frame and other conveniences on a large scale, there are two other ways of striking cuttings more suitable for parties with limited conveniences. The first is, to take young cuttings as soon as they have done growing and the lower end has become a little hardened. Prepare these cuttings in the same way as Mr. Henderson describes above. Insert them with a dibble in pure, light, sandy loam, drained with a layer of broken potsherds at bottom. Let each cutting touch this drainage, which greatly facilitates the emission of roots. When all are inserted, give a good watering to settle the earth firmly and closely to each cutting. Then place around the cuttings, close to the pot side, a few small, clean sticks, so placed that they will prop the leaves away from touching the bell-glass with which the cuttings should be covered. This bell-glass should never be taken off, excepting to wipe off the damps occasionally, and to remove any decaying leaves. Place them in heat, and in two months such as will grow will be rooted. The other method is, to use cuttings made the previous year, putting them in similarly in autumn, and placing them in a cold frame for the winter till the lower end of each cutting is calloused over; then give them a little heat, and roots will be formed, when they will push freely, and require potting off into single pots. These two methods may be practised by any amateur possessing cuttings, a bell-glass, and a suitable sized pot.

The Otahcite Orange, a dwarf, small fruited variety, is propagated freely enough by either of these methods. Kept afterwards in small pot, they form Orange-trees in miniature, which are very handsome, and suitable for the front stages of the greenhouse. T. APPLEBY.

(To be continued.)

COTTAGERS' GARDENS AND THEIR PRODUCE.

As some little discussion has arisen of late respecting the term Cottage Gardener, or, rather, on what may be defined as cottagers' productions at a Horticultural Show, I am induced to offer a few remarks, obtained by observing the general bearing the question assumes at the Horticultural Shows in this country, one of which, at Maidstone, being, perhaps, in as flourishing a condition as any provincial society of a like kind in the kingdom. Now, at this show, a wider latitude is given to the term "Cottager" than Mr. Beaton ascribes to be justly due to that class; exhibitors not being in any way restricted by their employment and a gentleman's gardener; not

being debarred from showing his garden produce, and competing with a neighbour having a less dignified employment; but in this district the advantages are not so important as might be expected. Spade husbandry, or gardening on a large scale, has made most of the routine duties of horticulture pretty well known, especially the most common operations; digging by the acre being done to an extent nearly equalling the ploughing around us, and grafting and budding the various fruit-trees being mostly done by labouring men, as well as the rearing, planting, and pruning of small fruits and other things; and there is no horticultural produce which receives so close attention as the Hop does; its experienced cultivator being able to tell whether the plant looks better, or worse, one day than it did two days before that; and the various diseases to which it is liable having all here the subjects of experiments, with a view to remedy or prevent them. I know of an extensive planter, who was said to expend several hundreds of pounds, last year, in effecting a cure for the blight in his Hops, soft-soap and tobacco being the principal substances used. This operation, of course, could not be done without being witnessed by the cottagers around; and their general acquaintance with varieties of fruits, and the peculiarities attached to them, tends to make them very formidable opponents in an open class; for I have seen as good Morella Cherries in a cottager's garden as ever I saw elsewhere, and Apples, Pears, and several other fruits, equally fine.

Now, where all the most useful operations of culture are going on around him, the latest imported Irish labourer to a bricklayer pretty soon may become a competitor with the best in the parish. It need, therefore, afford little surprise, to learn that the cottagers' productions at our Horticultural Show equal in quality that of the subscribers' in many things, exotic articles alone excepted.

This is the bright side of the question, which admits of little dispute: and then the inquiry arises, Have the number of exhibitors increased the last half-dozen years? I fear not. A few, more spirited than the rest, and, probably, more favoured, too, have contrived, by some of those preparatory measures known to all experienced exhibitors, to usurp to themselves a greater proportion of the prizes given, so that the names we are apt to see ticketed up as receivers of prizes are very often repetitions of former shows. To say this is unjust, would be using too severe a term; but it is certainly unfortunate, and tends to prevent some praiseworthy cottagers showing, by the fact that they think they have no chance with the favourite ones, who, by-the-by, may, and, I have no doubt, do, act with perfect integrity in the matter, and are every way eligible to compete. This state of things seems inseparable from a Society which has existed some years; neither do I think it could be remedied in this case; but I have often heard it remarked by gentlemen visiting the Show, "What excellent productions! but how few exhibitors! I wish so-and-so would show." There was no lack of produce, but so much of it came from the same hands. Nevertheless, with all these disadvantages, added to several weeks of very dry, hot weather, the Show on the 12th of September was an excellent one in most respects, vegetables and fruits both being good. But the flowers gave tokens of the dry weather being too much for them,—the *Dahlias*, especially, being small, compared to former years. Good fruits, however, were to be found in tolerable abundance, and vegetables were also good, including *Lettuce*, which, after a period of dry weather, is not always so good as in more moist weather. *Cauliflower* was most deficient, and *Celery* was not so good as usual; while *Potatoes* and *Onions* were both fine, as were also *Red Cabbage*, *Kidney Beans*, and some other things.

Certain privileges are accorded to cottagers at the shows: no subscription is required, and a greater number of extra prizes are given than amongst the general subscribers. The show is also open to them after a specified time. There are two shows, one in June, the other in September; the latter is held in the large market-room; the former in a field, commanding a fine view of the town and neighbourhood, and is so well attended, that the Committee usually take about one hundred pounds at the gate,—no despicable sum for a provincial show. Of course, the usual attractions of a fête are added, as military bands, &c.—a second Chiswick, in fact; the garden and grounds of the latter being very well compensated for by the richness of the landscape around, second to none, perhaps, in the kingdom, for the variety and quality of the produce; and, I need hardly add, that the votaries of fashion make it their duty to be there, and, altogether, a pleasant afternoon is often spent, the elements being invariably propitious, and are looked for as being such, much in the same way as they are booked the reverse for Chiswick. Of the quality of the things exhibited, little need be said beyond that, for a provincial show, they are generally good.

As cottagers and cottagers' gardens are my subject at present, I may say, that the tent, or department where their produce is exhibited, receives as much attention as any, and deservedly so; and a stroll through the country will convince a stranger that cottagers, as a class, have often chances of producing as good crops as any one. Apples, which are this season a very irregular crop, are most plentiful on the trees in cottagers' gardens; and a Plum, Morella Cherry, or Apricot, planted against the gable-end of a cottage, often produces as fine fruit as can be seen anywhere, although its branches may not be trained with that mathematical precision which formed the criterion of young gardener's skill in years long since gone by. These advantages result, probably, in the adaptation of the district to the growth of hardy fruits; but I am far from thinking it the best suited for Apples: on the contrary, there are more unhealthy trees, and orchards in a consumptive state, than might be expected, and, certainly, more than in many other districts. But the cottagers' trees, as a whole, are more exempt than the more extensive growers; and their pursuits being mostly identical, the cottagers have the opportunity of obtaining grafts or buds of the most approved sorts in the district; and it is well known that some kinds are better suited than others for certain soils and situations, even only a few miles apart. Good hedges are also an ornament to a garden where that fence is used; but I cannot, in a general way, compliment the cottager in that respect; some are neat; but usually, much value is placed on a garden, be it ever so small; while those who have a more extensive one contrive to make a few shillings each year from something or other. Of course, no prudent man sells anything that he can economically use himself.

In regard to cottagers' prizes at a Horticultural Show, I have long been of opinion that such shows ought to be more numerous, in order that the more diffident might be induced to compete; for, as stated above, a few individuals, favoured by circumstances, might usurp all the prizes at the general show of a country town, and only confer on them a just amount of credit; yet, at a small village show, where limits are placed to the abodes of the competitors, a fair share of competition will be found to exist, and, no doubt, all will go on well. It is a poor excuse to abandon a show because one dishonourable individual unjustly obtains a prize by exhibiting borrowed produce. The act itself, when known, is a sufficient punishment to the perpetrator, without further measures; and his expulsion ought to satisfy the other members; but, somehow, we often hear

of these shows, starting with great promise, continue a very few years, and die away, in consequence of acts like the above, or other systems of corruption, which are said to creep in, or are suspected to do so. The countenance and support of some influential individual will often carry out such a show well; and I could point out some that have existed in a healthy state for a great many years, and an evident improvement in the garden cultivation of the district is the result.

I will not here enter into the details of what constitutes a cottager in the sense understood as qualified to exhibit garden produce in that class; but I must certainly protest against depriving garden labourers of doing so, unless some special reason can be urged against them on other causes. An ordinary working man, in many gentlemen's gardens, has certainly advantages of obtaining cuttings or slips of flowering plants, which are not so easily obtained by those whose employment may be elsewhere; but the majority of vegetables, fruits, &c., are so well known, and their varieties so well appreciated, that it is questionable if the best are not oftener found in the cottager's garden than in that of the more opulent. This is more especially the case with such things as afford many varieties,—the Cabbage tribe, for instance, Peas, Onions, Lettuce, &c.; and although these things may often be found crowded in an unbecoming manner, still the varieties are the same. But in admitting labourers in a garden to compete with others, I would certainly not sanction those doing so who have any charge, or power, for it is reasonable to suppose that individual to have more advantages than others, and, consequently, is fitted for a higher class. But I leave others to draw the line of distinction, for local interest ought, in all cases, to be consulted first, and, no doubt, are best done by those on the spot. One thing, certainly, all will agree in, that such societies, or shows, be they under the patronage of one great man, or supported by a community, tend to improve the gardening of the district they are in, and, consequently, deserve all the encouragement that can be given; and as it is not an expensive affair commencing such a thing, it is to be hoped that the wealthy will come forward and assist their poorer neighbours, in a case wherein the benefits accruing being of a national kind, calculated alike to improve the mind and benefit the circumstances of those around them. It is to be hoped that another year will see these objects greatly multiplied.

J. ROBSON.

USE OF CALISTEGIA PUBESCENS.

WITH your permission, I will give my opinion of a climber called "*Calistegia pubescens*," from China, differing, in some measure, from the opinion expressed by you in No. 244, Vol. x. of THE COTTAGE GARDENER. I recommend it particularly to those who have unsightly out-houses in their flower-gardens, from which I suffer myself. Having obtained one of these plants, three years ago, in a pot, in which it certainly does not flourish, I planted it under a wooden balcony in a southerly aspect; there it grew and flowered luxuriantly. Early in this spring, I planted it from a rockery throughout the length of the out-houses, placing arches for it to climb over; also under Apple-trees that grew in the flower-garden, to hide the nakedness of the stems; therefore, it was planted in every aspect open to the sun. I must give you to understand, that I do not rely entirely upon this climber, but accompany it with the *Convolvulus major*, *Nasturtiums* of various colours, together with *Sweet* and *Tanjore Peas*. From the rockery, a raised border is carried throughout, planted with ornamental shrubs, mixed with *Mignonette* and other sweet flowers, such as *German Stocks*. I have lately added two more attractions to the rest, viz, *Honeysuckle* and *White Jasmine*, raised easily from cuttings.

I consider the double *Calistegia pubescens* preferable to the single one, as the blossom assimilates to that of the

Oleander, to my fancy, at least; of course it has not the sweet odour of that plant.

I omitted to mention the nature of the soil of the garden, which is much like bog-earth, having been under culture beyond 100 years, very black. *Rhododendrons* flourish in it. The subsoil, a clayey, loamy, will crumble in the hand. Three years since I had it double-trenched throughout. Vegetables of all kinds grow vigorously.—SUBURBAN.

RAISING ASTER SEED IN ENGLAND.

MR. BEATON, in his article on Asters, states that there is no reason why seed ripened here should not be as good as that imported from Germany. I take the liberty, therefore, of writing to say (to prove that Mr. Beaton is right), that I took the first prize for German Asters, at the last Teddington Show, with some Asters raised from some of my own seed, and that the seed *originally* came from a garden fifty-six miles north of Edinburgh. My China and German Asters were pronounced by Mr. Kinghorn, and many other eminent gardeners, to be far superior to any yet grown; in fact, perfect. I bought, last autumn, some seed abroad, and also some in London. The seed bought abroad has not produced first-rate blooms, and the seed purchased in London is worthless.—A SUBSCRIBER, *Twickenham*.

P.S.—I have had one bloom of a purple China Aster this season 14½ inches in circumference.

STOCKS FOR PEACH-TREES.

I FIND stated, at page 320, in THE COTTAGE GARDENER of the 31st July, that Peach-trees on their own roots will stand rougher treatment than those worked upon the usual stocks. Now, after many years practice, and numerous opportunities of judging of the capabilities of both systems, I am in the full belief that all that has been written, since the commencement of "London's Magazine" on this subject, is nothing but a pack of nonsense. Did you ever see or hear of Peach-trees going wholly off at their union with the stock? I never did, with the exception of young trees being killed by the frost. I attribute the sole cause to the following. In the first place, I do not hesitate to say, that half the Peach-trees out-of-doors are in the hands of those who know nothing about their proper treatment. 2nd, They are planted in situations where they ought not to be placed; and are growing in borders more suitable for Vines than for Peach-trees. Succeeding admirably, perhaps, for two or three years, under favourable seasons, till a wet, cold autumn is succeeded by late spring frosts, and then all is over.

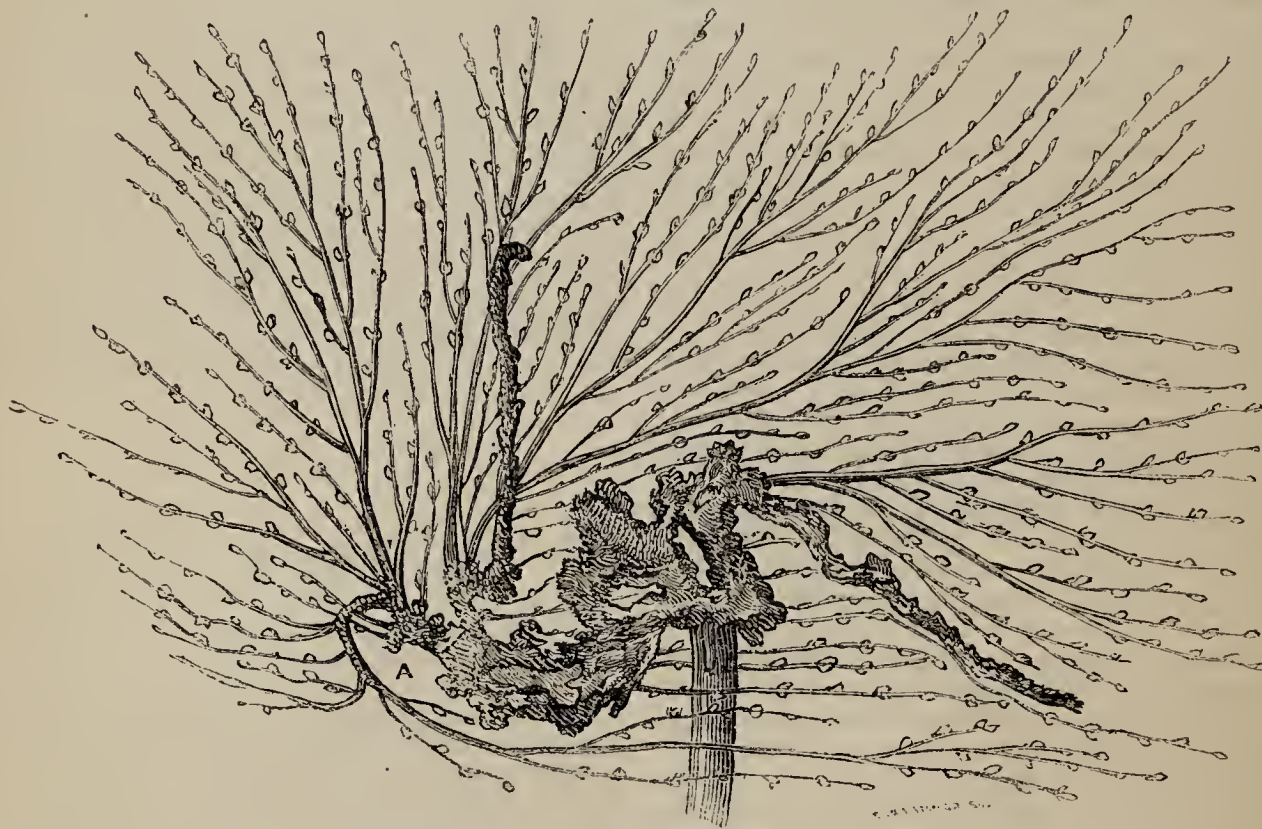
Peach-trees will stand much frost, if dry, and under cover; as an instance, I have, in May, run my hand along behind the trellis and the glass, and torn the young shoots away when the leaves were frozen to the glass, without the shoots being injured. You may rely on it, that the glass will do the same for them that this late season has done for the Pears—do away with much of the absurdity about stocks for either.

Peach-trees, in my opinion, ought to be pruned three times in the season; the principal pruning, without delay, as soon as the fruit is gathered. Not a shoot that is not considered absolutely necessary for the following season should be left. The next, pruning just before the sap rises, at which time shorten in what shoots require it, and clear away any one that was overlooked in the autumn; and, thirdly, when you are going over the disbudding for the first time, just after the fruit is safely set, cut out any shoots not required, that may have been left where there were doubts of the fruit setting; and I would rather thin out the flower-buds than leave a load of useless fruit till after they were stoned. But to my text—

Suppose you raise Peach-trees from stones, what will you gain by it? To begin, you will lose two or three years; and then, ten chances to one but you get disappointed, by

finding out at the end that you have been nursing rubbish. Why not purchase maiden-trees, warranted from trees true to their names? and stopped in the way Mr. Beaton recommends, which trees, if properly treated, and potted, say the middle of October, and then the pots plunged in a little bottom-heat, with a mat, or, what is equally good, a few branches placed over them, just to keep the sun, not the air, from them, till their roots get established; and, as soon as this was the case, you cannot let their tops have too much exposure. If the above is attended to, I am certain you will have better trees than those kept in pots that I have seen this season, more like mops than bearing trees, *price a crown (which a Scotch echo whispers, too much)*, and will, with ordinary treatment, have a good crop the first season.

I enclose a sketch of four trees; the stocks of the Peach-trees are now, at least, fifty years of age. A look will be sufficient to show that the union betwixt them is just as unhappy as the complainers about proper stocks could wish; but to show, that however hard their struggles have been to keep together, there are shoots on No. 4, of this season, four to six feet in length; and the other three are quite as strong as I want them; and I will back these four veterans against any four of the same age, on their own roots, growing in one place, to produce, say a dozen or more fruit, at the first Society's Show in July, or the Regent's Park; to be judged by quality and size, according to those varieties, the loser to pay a reasonable sum to the Benevolent Institution for Destitute Gardeners. (The following is a fair example of the sketches sent by Mr. Fergusson.)



I was much amused on reading, in the leading article of the *Chronicle* of the 15th, the *amazing* and *wonderful* doings of my old acquaintance, Mr. Gordon, at the Horticultural Society's Gardens. It reminds me of an old master I had, who, the autumn before I went to the place, had had two Vineries erected, which were quite a new affair for him; and, without romancing, I fully believe that half of his time, in June and July following, was taking up measuring and re-measuring the growth of the Vines planted in them. Now, I suspect Mr. Gordon is equally as enthusiastic after this new toy, and that if he was to give us an exact account of his valuable time bestowed on the principal crop, which I see does not reach two hundred Peaches and Nectarines, and will not realize, if sent to-morrow to a salesman in Covent Garden, £5; it would not, therefore, I fancy, be equivalent to Mr. Gordon's time. Peaches in pots are like Vines in pots, —useful in their place, but will never equal established trees for general cultivation, will require double extra attention, and fall below them either for size and quantity of fruit; and, if care is not taken, in quality also.

In 1850, I sent 960, in August, to London at one time, but I found it too many Peaches for Covent Garden; but I have frequently, since, sent double what is mentioned in the *Chronicle*, and have 501 Peaches, within six feet of where I am, that will be sent off to-morrow. I find, by my book, that I sent Peaches, ripened without fire-heat, to London, in 1851, on the 17th July; 1852, 30th July; 1853, 1st August; 1854, 1st August; 1855, 21st August; but I generally have gathered a few at least a week before those I sent to London. Besides, this is a very late place; and no Peaches will ripen out-of-doors, at least, such as the *Royal George*, in a season like this.

I wish it to be understood that my object in sending the

above is not to condemn the pot system, but to show that it is only suitable under circumstances; and for gentlemen to bear in mind that it requires knowledge and care, even to grow them—and, after all, it reflects much credit on Mr. Gordon for taking such a lively interest in helping to bring out what will be really very useful and interesting to many. In fact, carrying out the views of the founder of the Society.

S. FERGUSSON, *Stowe, Buckingham.*

TROPEOLUM MACROPHYLLUM.

I AM rather surprised that Mr. Beaton, or some other of your indefatigable coadjutors, have not before this recommended this delightful plant for flower-garden decoration. As a central plant in geometrical flower-beds, I know of nothing to equal it, as it far surpasses standard Roses, Fuchsias, or Geraniums, which we frequently see used for such purposes.

This *Tropæolum* can, with the greatest facility, be trained into any form that may be desired, and will cover, with great rapidity, a wire trellis of considerable dimensions; and at the same time produce its curiously-pretty scarlet flowers tipped with green. I have it, at this moment, one mass of bloom, with every appearance of continuing so until the latest period when the flower-garden can be expected to be attractive.

It also forms a strikingly beautiful object as a single plant on the lawn, trained, of course, to a wire stand or trellis.

But, as variety is evidently essential in flower-gardening, can any of your correspondents kindly inform me if they are acquainted with any other *Tropæolum*, or other plant,

that would equally well answer the purposes I have alluded to? I have tried the *Maurandya Barclayana*, &c., but with indifferent success, as they did not flower sufficiently profusely to be very effective.

Such *Tropaeolums* as *Jarrettii*, *Brachyceras*, &c., will not do, as their time for flowering is early spring, and they are, besides, not sufficiently robust in habit for open air flowering.

The *Tropaeolum macrophyllum* increases itself by underground tubers, which should be taken up about the end of October, kept during winter, potted, and started in April, and planted out about the same time as other bedding plants, viz. at the end of May.—P. G.

QUERIES AND ANSWERS.

GARDENING.

MINIATURE ROCKERY.

"Could you inform me as to the most suitable method of forming a small Rockery, to be placed under a bell-glass in the window, and which of the British Ferns would be most adapted for it? I have several of the Ferns growing very freely in pots in the window, which, if eligible, I intend placing in the Rockery. They are the *Asplenium Trichomanes*, *A. alternifolium*, *A. ruta-muraria*, *A. lanceolatum*, *Cystopteris fragilis*, *Polystichum Lonchitis*. Also, a few Alpine flowering plants, among which are *Saxifraga stellaris*, *S. nivalis*, and *Cotyledon umbilicus*, from Snowdon and neighbourhood.—JOHN COCKCROFT."

[The great difficulty of forming such a Rockery as you require is the exceedingly small space. The best material is either pumice-stone, or the Derbyshire tufa. To form a foundation for such a tiny Rockery, you may use clinkers (vitrified coal ashes), filling in the spaces with Portland cement. If you cannot get pumice, or tufa, you might form the Rockery with clinkers or scoriae, entirely covering it with the cement laid on with a brush. Form a pyramid, leaving unequal surfaces, rock-like, to hold a small portion of a compost of peat earth, such as Heaths grow in, and leaf-mould, mixed with pounded brick. It is impossible to give minute directions how to build the rock; you must exercise your own taste, and aim at forming such a rocky appearance as to look like piles of natural rocks in miniature, with here and there bold projections, which projections will leave hollows, in which the plants may be placed.

We are glad to hear that you are successful in growing British Ferns in pots in your windows. Select from your stock, for your Rockery, to be placed under your bell-glass, the following, *Asplenium Trichomanes*, *A. ruta-muraria*, *A. lanceolatum*, and procure *Grammitis ceterach*, *Adiantum Cupillus-veneris*, *Adiantum pedatum*, and *Allosorus crispus*. Your *Saxifragas* would spread too much, but *Cotyledon umbilicus* might answer. No plants, however, do so well under a bell-glass or Wardian case as Ferns.

Have you really met with (growing wild) in your locality, the *Asplenium alternifolium*, and *Polystichum Lonchitis*? If you have, send us word where and when you found them; we shall be greatly obliged. The first is too rare and tender to venture in your bell-glass; and the second grows too large,—and, besides, is rather apt to damp off in so confined a situation.

When you have planted your Rockery, give it a good watering, and place it in the shade for a few days without the bell-glass. Then put on the glass, and let it remain for a fortnight, then take it off, and if the soil is dry give a second watering and keep the glass off that night, replacing it early in the morning. Take the glass off every ten or twelve days to dry up the damp; give fresh air to the plants, and induce a stout, healthy growth. While the glass is off, clear away all decaying fronds, weeds, &c. With this care and attention you may enable your Ferns to grow admirably.]

GROWING THE WINESOUR PLUM.

"I shall be obliged by your kindness in informing me what is the soil best adapted for a Winesour Plum. We

have a tree of this variety which has been planted many years. It generally bears a good crop of fruit, which falls prematurely, and the Plums are very small. The tree is very much without leaves. The soil it now has is that of a common kitchen-garden, neither chalky nor gravelly, with a cool bottom.—A CONSTANT READER."

[The soil on which the Winesour Plum succeeds best is limestone; indeed, some say it will not prosper on any other. We know many good soils where, after flourishing for a few years, it invariably languishes. Look to the roots of your tree; perhaps your soil, which you say has a cool bottom, is too retentive of moisture.]

TECOMA JASMINOIDES.

"Will you state what aspect you advise out-of-doors for the *Tecoma jasminoides*; and whether a sheltered situation is best? also, would it require much protection in the winter? We have had a plant for three years in a pot in the greenhouse, trained against the wall on some wire-work. would this be a suitable plant to put out? It has never bloomed. Or would a young plant be better?—A LADY."

[We did not, nor do we, recommend *Tecoma jasminoides* as an out-door plant. It is strictly a conservatory wall-plant, where the frost is kept out without hindering the light from reaching the plant every day in winter. This cannot be effected without a glass covering for the wall, with other means to exclude frost. Such plants as the *Mandevilla*, for instance, which lose their leaves in winter, may be kept out against a wall without a glass covering, a deep thatch of straw, or fern, being used instead of glass, for roots and all; but an evergreen, like the beautiful *Tecoma* in question, will not do without light; therefore they are strictly conservatory wall plants. The best ventilated greenhouse seems too confined for it and some others in summer; but the subject is handled in various ways to-day by Mr. Beaton, in his account of the half-hardy climbers at the Crystal Palace.]

SEEDS IN THE CENTRE OF AN OAK STEM.

"I enclose you some seeds which were found in the centre of an Oak tree of large dimensions, viz., seventeen feet in circumference. When found, they were apparently a solid nest of seeds stored with the dust, and without any aperture to the air. The Oak is computed at about 2,000 years old, and, by the appearance, these seeds must have been deposited in the Oak for a very long period of time. I write to ask if you can name them, for I find no one here can? Your kind reply will oblige—JOHN CROMPTON, *Bury, Lancashire*."

[The seeds are those of the Yew tree, and may have been deposited there by mice ages since. They seem to be perfect, and to be capable of germination.]

THE POULTRY CHRONICLE.

Among the many benefits that will be due in after times to Poultry Shows, none will, perhaps, be more lasting than that of having called the attention of agriculturists to it. At the late meeting, at Paris, of the Society occupying the same place in France as the Royal Agricultural does in England, the competition was open to the world, and although, from the framing of their rules, and their unavoidable want of the knowledge and arrangement which practice has given here to exhibitors and committees, but few of our countrymen, and none of our best breeders, entered the lists; still, enough were sent to show them we had made progress during the last few years.

Orders are now coming in freely from France for birds of the breeds shown by Englishmen, and we shall not

be surprised to see Frenchmen our competitors and Allies for Poultry fame, as they have been for the deathless renown of the battle and assault in more serious arenas.

Most people are aware that we are their models for most things relating to the farm, &c. They have instituted large schools, where almost every branch of study is made subservient to the science of agriculture, and here they have formed regular establishments for Poultry, which will have their lectures and experiments in common with other stock.

Agricultural Exhibitions and Shows are springing up among them, and Poultry is everywhere being joined to them. The improvement of Poultry is increasing daily as a pursuit, and the Committees of the Shows are determined to carry it out.

We are often disposed to wonder how it is that Poultry excites so little interest among the farmers of England. Take the list of exhibitors at any large show. You have nobility, gentry, clergy, professional men, merchants, tradesmen, artisans, but few farmers. Look at the spectators, no class is so badly represented in numbers as that which has the greatest interest in the question. The inhabitant of a town or city submits to any inconvenience, and often incurs large expense, to give to his feathered favourites an instalment of the necessary comfort which the agriculturist possesses, yet makes no use of. Is it, that true to human nature, the latter prizes not that which he has? Perhaps it is. But if the culture of the soil, and feeding and breeding stock are to be considered as business, let us say this is, at best, but careless trading.

Many of the townsmen of whom we have spoken have realised large sums by their Poultry, spite of their difficulties. What might not, then, be done by those who have all the "means and appliances to boot." Much of the Poultry bred abroad is intended to supply the English market, and hundreds of millions of the eggs will come here. It is admitted we have better breeds; we lack no facility for rearing; we possess a thorough knowledge of the subject, and yet we cannot supply ourselves. We attribute this entirely to the supineness of our agricultural friends, and we hope, that seeing others are disposed to take up ground they desert, we shall see more of them at our shows, both as spectators and exhibitors.

FOOD AT MOULTING TIME.

"My employers keep Cochin-China fowls, and there are just now four of them wanting to sit, and certainly very troublesome things they are, for do what you will with them they will sit, and one out of the four has died. One pullet has also died, and the old cock does not look well. They are most of them moulting. Is there any sort of food more suitable for them at that period than at other times? I fear the house that they roost in is too small—it is seven feet by four feet, and seven feet high, for some twenty-two or twenty-three birds. They have plenty of food, barley, oatmeal, rice, and boiled potatoes, with an unlimited space to range in during the daytime, and still there is something wrong. Could you assist me in this matter through the medium of your much-valued journal?—WM. CARR."

[Beyond all doubt, the roosting-place is too small. In

hot weather, at night, the air must be pestilential. It is not too large for one-fourth the number. The food you particularise is very good, and if the fowls have plenty of pure water, and of green food, their illness does arise from the quality of their diet.]

BROODY HENS NOT REQUIRED FOR HATCHING.

I HAVE, in my practice to cure broody hens, managed somewhat differently to the mode recommended by your old correspondent, Mr. Tegetmeier. As soon as a hen shows she has the broody desire upon her, I remove her from that place, and put her amongst other poultry. Being taken away from her accustomed nest is a great *deviation*, and similar to Mr. Tegetmeier's cooping. It has this great additional physiological benefit, that by allowing pure air and exercise, health and digestion is aided. Broodiness is a provision of nature, not only for the purpose of incubation, but also a rest after exhaustion in laying, and which we all know occurs concurrently with the fact of the hen not being able to continue laying, brooding, and sitting at one and the same time. The true philosophical treatment, therefore, is to bring the hen into a laying condition again, by free air and exercise, with good feeding, giving food which induces the production of eggs. Allowing them to sit a few days, and also cooping, are practices injurious to the above ends.—BOLDHOPE FELL.

STATE OF OUR VARIOUS BREEDS OF POULTRY.

A SATISFACTORY period has now passed since Poultry Shows, consequent on a rapidly increasing desire of acquiring a better knowledge of the habits and properties of our domesticated birds, have been established throughout the length and breadth of this country; while both France and America appear to be treading in our footsteps. The term "satisfactory," is here employed as justifying conclusions that may now be drawn from the results of these Exhibitions, on the score of the sufficient test of time.

It will hardly be contested, that the number of those who keep poultry has been thus greatly increased, as also the quality of the birds themselves; but even were this denied, we might be content to rest our argument in favour of the benefit obtained through these Institutions, by referring to the fact, that while a large majority of poultry-keepers, in former years, knew little or nothing of the management, or the points to be looked for in their stock, such indifference is now a rare exception to the general rule.

If we excepted *Shanghaes*, where the error of breeding too exclusively for colour induced degeneracy, from which, however, the race has already again emerged, feather, so important a point for the judge, has been thus improved, without the sacrifice of any other one desirable property.

So far, then, our case may thus be stated. Many more people than formerly know what should be the points of a good, useful fowl, and such specimens have been widely circulated, and, in most instances, are obtainable at a reasonable cost through the influence of poultry shows. The producer and consumer are here alike benefited; but it may serve a good purpose to enquire further as to the comparison to be drawn between the various descriptions of poultry in their present and past condition.

As profitable poultry, especially as regards the purposes of the table, is prominently before us, while making these remarks, *Dorkings* may justly take precedence; though admission is at the same time readily accorded to the fact, that, in some cases, and under certain conditions, other breeds may give a better return, even as regards the requirements of the poultryer.

The accident of a local name may, perhaps, have contributed, in some measure, to limit the distribution of these meritorious birds, from an apprehension that other districts would not prove equally favourable for their abode. There was little, however, in the character of the Sussex soil, or climate, that would suggest its peculiar adaptation to the

purposes of the poultry-keeper, and the celebrity that the most northern counties, with Lancashire and Derbyshire, have since so justly acquired, fully testify the fallacy of such an apprehension.

Dorkings have, unquestionably, prospered under the influences of exhibitions. Many of our local shows, formerly more notoriously deficient in this class than in any other, are now found to contain birds to whom the premiums of Birmingham would have fallen some two or three years back.

In one or two instances, however, strains may be spoken of, which even then left so little to be desired, that no very decided improvement in their case could either have been anticipated, or, in fact, has been realised. But these ever stood out alone from the ranks of their competitors, in very marked contrast to the close running of the present candidates for distinction. If something has been gained in point of weight, the feather, both in respect of colour and condition of Captain Hornby's birds, has never, probably, been exceeded; and hence, from his known system of management, a useful lesson may be learnt, to the effect that Dorkings require every advantage in point of run; and to attempt keeping them under unfavourable circumstances, in this respect, must entail certain disappointment.

With the close of the present year, the period ends for which the terms on which Captain Hornby's were sold prohibited his appearance as an exhibitor in those classes where his greatest successes were achieved. As there is reason to believe that he has not been less careful of his present stock during this interval, his return will be anxiously expected.

Nor let it be thought that mere condition of feather matters little where the birds are not intended for exhibition, since a healthy condition of the plumage is always a sure indication of a vigorous constitution, and of those other points requisite for a satisfactory appearance on the poulterer's board.

If we regard the Dorkings as, *par excellence*, "the table fowl," the importance that has been laid on its possession of the fifth claw seems to have been just; inasmuch as, although very many excellent specimens are constantly shown without it, a very large proportion of those that have combined the features of the highest merit exhibit this peculiarity in its best defined form. This remark may be thought unneeded; but it should be borne in mind, that there are not a few persons who have endeavoured to place the four-clawed Sussex fowl on a par with what it commonly called the pure-bred coloured Dorking. The number of rose-combed birds does not appear to have increased, and since some of the heaviest pens in the early days of poultry shows belonged to this class, and nothing could be alleged against them, in either form or feather, their comparative disappearance among the vast increase of the single-combs is accounted for.

While *Dorkings* have not advanced in any one point beyond the position occupied by them some years back. Many, in fact, who then kept them, have now wisely profited by the manifest superiority of the coloured birds, and, in consequence, have changed their stock for the latter. No further evidence, moreover, appears to have been adduced as to the title of the white birds to be considered as the original type of the Dorking family. Single combs, it should be observed, are now wisely permitted to contend in this class on an equal footing with those of the rose form. The weak point in both the white and coloured varieties still remains unchanged, viz., their delicacy of constitution, evidenced by the mortality among the chicken.

In respect of *Spanish*, their rapid advance from the average standard of a period some two or three years back is at once perceptible, not less in the yards of their owners than in the exhibition pen. Little difficulty here formerly attended the labours of the judge; for the contest was usually limited to the two or three pens that even at our best shows appeared free from any material blemish; but now, his most diligent scrutiny, and most patient investigation, are usually imperatively demanded. Thus the *Spanish* classes, as a whole, may be described as infinitely superior to those of preceding years; but, probably, it will be found that their popularity is owing rather to their estimation as a fancy fowl, than to any strictly economical merits. The

red-faced birds of this family, commonly known as "*Minoreas*," excel them as layers, especially in producing eggs with harder shells, an admitted desideratum in the white-faced *Spanish* fowl; while the more compact shape of the former would be another point in its favour with the cock.

The small proportion of really first-rate chicken, produced in even the best-selected yards, has been one powerful reason for sustaining the high figure at which good specimens are priced; and since it would seem that their appearance, rather than their real economical value, commends them to the public taste, they fortunately meet with purchasers who would seldom invest their money on them if mere utilitarian considerations were to influence the selection. In *Spanish*, as in *Dorkings*, many of the most successful yards are greatly indebted to the old *Knowsley* blood.—W.

(To be continued.)

PEDIGREE OF MRS. FORD'S DUCKS.

IN reading your paper, I saw a letter from Mrs. Ford, relating to the pedigree of her *Aylesbury Ducks*. Little as I should wish to controvert the statement of a lady, I must say, the inference to be drawn from it is, that either Mr. Davies, that prince of the poultry world, or herself, bred her prize birds. I must express my belief that they were bred by neither; but most likely by myself, or Mr. Weston. At all events, I think I am not far wrong in stating, that most of the first-prize pens shown at any place of importance during the past year, were either bred or immediately descended from birds of Mr. Weston's or my own. The old Latin motto—"Palmarum qui merui ferat," impels me thus to write to you.

I am quite sure Mr. Davies can spare some of his well-earned laurels to decorate the brows of the *Aylesbury* breeders; and whilst writing this, I may be allowed to say, whoever bred Mrs. Ford's ducks, or Mr. Davies's ducks, wherever I have seen them, I never saw anything shown in more perfect or beautiful condition than they have invariably been.

I trust, however, that at our forthcoming show, in November, which will be open to the kingdom, we may have the pleasure of meeting the first poultry-keepers in England, and we shall then see who is the best.—J. K. FOWLER, *Prebendal Farm, Aylesbury*.

BURY POULTRY EXHIBITION.

BEFORE entering into particulars respecting this Exhibition, we beg to draw the attention of our numerous poultry friends to a feature connected with shows in *this* locality, that, at first sight, will appear altogether paradoxical. If a Poultry Show is held in Manchester, where access thereto is, as it were, at the very doors of the visitors, the attendance invariably is of so *limited* a character, that very considerable loss ensues to its projectors; if, contrawise, the meeting is held in some spot available by railway, and the return ticket does not entail more than, perhaps, a couple of shillings additional expenses, the ground is as certainly filled to overflowing. This has again and again proved to be the result; and the only explanation it is possible to assign for this apparently capricious whim in the public generally, appears to arise entirely from the strong natural impulse of all individuals for an occasional "out," from the close confinement the trade of Manchester (more particularly) of necessity entails. Be this as it may, certain it is, that the meeting of Friday, September the 21st, yielded a harvest from the entrance monies far more than was previously anticipated; and we can also state, with confidence, that the visitors embraced all classes in the community. The day proved as fine as could be wished for; and from the fact that a Floricultural Society also held their annual meeting immediately adjoining the Exhibition field for the Poultry, the influx of ladies and children bore no mean proportion to the aggregate of visitors, whilst their gaiety of attire enlivened the whole proceeding. From thus holding their meetings on the same day, though the socie-

ties were not connected, we doubt not the receipts of both parties were equally benefited. The Poultry department was under the distinguished patronage of the Earl of Derby, Lord Stanley, and many others of the neighbouring aristocracy. We cannot refrain our meed of praise from Messrs. Crosse and Wanklyn, on whose shoulders the whole duties of arrangement entirely depended. These gentlemen proved themselves the parties to faithfully and efficiently fulfil all the manifold duties their office required; everything was carried out methodically; no hurrying, no bustling at the last moment, no mistakes; and we will add, that every fowl was on its homeward route within an hour of the close of the Exhibition. A public dinner (attended by nearly two hundred gentlemen) closed the festivities of the day, the chair being very efficiently filled by Mark Phillips, Esq., of Snitterfield; and the enthusiasm that prevailed spoke very favourably for future similar meetings of this society. The show of *Spanish* fowls was excellent. The first-prize adults were really most extraordinary fowls; and, perhaps, have never been equalled, certainly not excelled, at any exhibition that has come under our observation. These fowls, it will be seen by reference to the prize list, were likewise awarded the silver medal for the best pen of poultry (of any kind) in the exhibition. The *Dorkings* were not nearly so good as we had anticipated. The first-prize *Cochin* chicken (buffs), were unexceptionable; but we could scarcely accredit the general deficiency of *character* that otherwise prevailed in the classes appointed to these varieties. Several pens of chicken were very properly "disqualified," from being all *male* birds; and we cannot allow the present opportunity to pass by without again drawing the attention of our poultry amateurs to the vital necessity of exhibiting their poultry according to the printed regulations, as to sex. For neglect of this rule must necessarily end in disappointment, however perfect each individual bird may otherwise be exhibited. The *Hambros* were very superior; among these, a pen of fowls that would have been troublesome rivals at any show, were here thrown completely out of prize-taking, from the truly woeful condition they were in from that direful scourge of poultry-yards,—roup. The *Silver Pencilled* varieties were both numerous and excellent; they were, consequently, the most successful of any;—as at Bury, all classes merged in one, so far as related to the sub-varieties of *Hamburghs*. Neither the *Geese*, *Ducks*, nor *Turkeys*, were so good as we could wish for, though the entries were numerous. The prizes were awarded by Edward Hewitt, Esq., of Spark Brook, near Birmingham, who officiated as judge on the like occasion last year.

JUDGE—Edward Hewitt, Esq., Spark Brook, Birmingham.

SPANISH (CHICKEN).—First, Mr George Stow, Colne. Second, Mr Benjamin Jackson, Gardener, Irwell House, Prestwich. Highly Commended.—Mr John S. Henry, Woodlands, Crumpsall.

COCK AND TWO HENS, OF ANY AGE.—First, Mr John S. Henry, Woodlands, Crumpsall. In addition, this pen had the Silver Medal. Highly Commended.—Mr Michael Potter, Prestwich, near Manchester. Commended.—Mr John S. Henry, Woodlands, Crumpsall. (The best class in the Exhibition.)

DORKING (CHICKEN).—First, William Grundy, Esq., The Wyld, Bury. Second, Mr Michael Potter, Prestwich, near Manchester. Highly Commended.—Mr John S. Henry, Woodlands, Crumpsall. Commended.—Mr James Fletcher, Stoneclough, near Manchester.

COCK AND TWO HENS, OF ANY AGE.—Prize, Thomas Statter, Esq., Stand, Pilkington.

COCHIN-CHINA (Cinnamon or Buff) — CHICKEN.—First, Mr R. Edward Ashton, Oaklands, near Bury. (Buff.) Second, Mr Henry Morton, Georgiana-street, Bury.

COCK AND TWO HENS, OF ANY AGE.—Prize, Mr Thomas Stretch, Marsh Lane, Bootle, near Liverpool.

COCHIN-CHINA (Brown or Partridge) — CHICKEN.—First, William Wanklyn, jun., Esq., Green Bank, Bury. (Partridge.) Second, Mr Edward Evans, Brittain Cottage, near Bury.

COCK AND TWO HENS, OF ANY AGE.—Prize, William Wanklyn, jun., Esq., Green Bank, Bury. (Partridge.)

COCHIN-CHINA (Black or White) — CHICKEN.—First, William Wanklyn, jun., Esq., Green Bank, Bury. (Black Cochinchina.) Second, William Wanklyn, jun., Esq., Green Bank, Bury. (Black Cochinchina.)

GAME (CHICKEN).—First, Mr Richard Hall, Barlow Fold, near Bury. Second, Mr Richard Gorton, Tottington Hall, near Bury. (Black-breasted Red Game.) Highly Commended.—Mr Richard Gorton, Tottington Hall, near Bury. (Black-breasted Red Game.)

COCK AND TWO HENS, OF ANY AGE.—Prize, Mr George Ashton Limefield, near Bury.

GOLDEN HAMBURGH (CHICKEN).—First, Mr John Turner, Stann Lane, Radcliffe. Second, Mr Henry Butterfield, Barrowford. (Golden-spangled *Hamburgh*.) Highly Commended.—Mr James Fletcher, Stoneclough, near Manchester. (Golden-pencilled *Hamburgh*.) (An excellent class.)

SILVER HAMBURGH (CHICKEN).—First, Mr John Holt, Unsworth. Second, Mr Stephen Fletcher, Hills Nook, Unsworth.

POLAND (CHICKEN).—First, Mr James Fletcher, Stoneclough, near Manchester. (No competition for second prize.)

BANTAM CHICKEN (Any variety).—First, Mr Nathan Marlcor, Denton, near Manchester. Second, Mr Thomas Stretch, Marsh Lane, Bootle. (Golden-laced Bantams.)

COCK AND TWO HENS, OF ANY AGE.—Prize, William Wanklyn, jun., Esq., Green Bank, Bury. (Golden-laced Bantams.)

TURKEYS, OF ANY AGE.—No birds competing worthy of prizes.

GEESE, OF ANY AGE.—First, Mr William Kershaw, Heywood. Second, Thomas Price, jun., Esq., Chamber Hall, Bury. (Toulouse *Geese*.) Highly Commended.—Mr Lawrence Duckworth, Sheep Hey, Shuttleworth. Commended.—Mr George Ashton, Limefield, near Bury. (A very good class.)

DUCKS, OF ANY AGE (Aylesbury, or other White variety).—First, Mr David Henderson, Top o'th' Lee, Shuttleworth. (Aylesbury Ducks.) Second, Mr George Ashton, Limefield, near Bury. (White Ducks.)

HATCH OF DUCKLINGS, NOT LESS THAN FOUR.—Prize, William Grundy, Esq., The Wyld, Bury. (Aylesbury Ducklings.)

ROUEN, OR OTHER DARK VARIETY, OF ANY AGE.—First, Mr R. Edward Ashton, Oaklands, near Bury. (Rouen Ducks.) Second, Mr George Ashton, Limefield, near Bury. (Rouen Ducks.)

HATCH OF DUCKLINGS, NOT LESS THAN FOUR.—Prize, Mr Henry Smith, Freeville Cottage, Bury. (Rouen Ducklings.)

HARROGATE AGRICULTURAL AND POULTRY SOCIETY'S EXHIBITION.

THIS Exhibition took place on the 21st of September. The following is a list of the prize takers:—

SPANISH.—First, Mr M. Ridgway, Dewsbury. Second, Mr M. Ridgway, Dewsbury.

COCKEREL AND TWO PULLETS OF 1855.—First, Mr M. Ridgway, Dewsbury.

BRAHMA POOTRA.—Second, Mr W. Hannam, Deighton House, Wetherby.

DORKING (Grey).—First, Rev. G. Hustler, Appleton, Tadcaster. Second, Rev. G. Hustler, Appleton, Tadcaster.

COCKEREL AND TWO PULLETS, OF 1855.—First, Rev. G. Hustler, Appleton, Tadcaster. Second, Mr Scriven, Throstle Nest, Otley.

COCHIN-CHINA (Cinnamon and Buff).—First and second, Rev. G. Hustler, Tadcaster. Commended.—R. Dewes, Esq., Knaresbro.

COCKEREL AND TWO PULLETS, OF 1855.—First, Mr T. H. Barker, Hovingham, Malton. Commended.—Rev. G. Hustler, Tadcaster. R. Dewes, Esq., Knaresbro.

COCHIN-CHINA (Brown and Partridge-feathered).—First, Mr T. Pearson, York Place, Leeds.

COCHIN-CHINA (White).—First, Mr H. Beldon, Eecleshill Moor, Bradford. Second, Mr W. Dawson, Mirfield.

COCKEREL AND TWO PULLETS OF 1855.—First, Mr W. Dawson, Hopton, Mirfield.

GAME FOWL (Of any colour).—First, Mr J. Watson, Knaresbro'. Second, Mr H. Beldon, Eecleshill Moor, Bradford. Commended.—Mr J. Watson, Knaresbro'. Commended.—Mr G. Hutchinson, York.

COCKEREL AND TWO PULLETS OF 1855.—First, Mr John Watson, Knaresbro'. Commended.—Mr John Watson, Knaresbro'. Mr J. Jaques, Knaresbro'.

GOLD-PENCILLED HAMBURGH.—First, Mr W. Hannam, Wetherby. Second, Mr H. Beldon, Eecleshill Moor, Bradford.

COCKEREL AND TWO PULLETS OF 1855.—First, Mr C. Dearlove, Preston Junction, Yarm.

GOLD-SPANGLED HAMBURGH (Gold Pheasant).—First, Mr H. Beldon, Eecleshill Moor, Bradford. Second, Mr C. Dearlove, Preston Junction, Yarm.

COCKEREL AND TWO PULLETS OF 1855.—First, F. Powell, Esq., Knaresbro'.

SILVER-PENCILLED HAMBURGH.—First, Mr Scriven, Throstle Nest, Otley. Second, J. Greenwood, Esq., Swarcliffe Hall.

COCKEREL AND TWO PULLETS OF 1855.—First, J. Greenwood, Esq., Swarcliffe Hall.

SILVER-SPANGLED HAMBURGH (Silver Pheasant).—First, Mr W. Firth, Stourton. Second, Mr H. Beldon, Eecleshill Moor, Bradford. Commended.—Mr W. Firth, Stourton. Mrs William Gott, Spring Brank.

COCKEREL AND TWO PULLETS OF 1855.—First, Mr W. Firth, Stourton. Commended.—Mr Scriven, Throstle Nest, Otley. Mrs Jackson, Killinghall. Mr Wilson, Markington Hall.

GOLD AND SILVER-SPANGLED POLAND FOWLS.—First, Mr M. Ridgway, Dewsbury. Commended.—Mr S. Rhodes, Knaresbro'.

ANY OTHER DISTINCT BREED.—First, Mr H. Beldon, Eccleshill Moor, Bradford. (Black Hamburgs.) Second, Mr C. Dearlove, Yarm. (Silver-crested Polands.) Commended.—Mr J. H. Cockett, Burnt Yates, Ripley. (Silk Japan.) Mr W. Dawson, Mirfield. (Serai Taoock, or Sultan's Fowl.)

CHICKEN OF 1855 (Of any distinct variety not named).—First, Mr W. Dawson, Mirfield. (Serai Taoock, or Sultan's Fowls.) Commended.—Mrs W. Gott, Spring Bank. (Andalusians.)

BANTAMS (Gold-laced).—First, Mr Binns, Ripon. Second, Mr H. Beldon, Eccleshill Moor, Bradford.

BANTAMS (Silver-laced).—First, Mr H. Beldon, Eccleshill Moor, Bradford.

BANTAMS (White).—First, Mr T. Waterhouse, Stourton, Knaresbro'.

BANTAMS (Black).—First, Mr T. Pearson, York Place, Leeds. Second, Mr R. Jarvis, Newall Hall, Otley.

PIGEONS (Carriers).—First, Mr H. Beldon, Eccleshill Moor, Bradford. Commended.—Mr W. Walton, Byard's Lodge, Knaresbro'.

ALMOND OR ERMINE TUMBLERS.—First, Mr F. Carter, Otley. Commended.—Mr Hughes, High Skellgate, Ripon. Mr H. Beldon, Eccleshill Moor, Bradford.

FANTAILS.—First, Mr W. Walton, Byard's Lodge, Knaresbro'. Commended.—Mr C. Dearlove, Yarm.

POUTERS OR CROPPERS.—First, Mr W. Walton, Byard's Lodge, Knaresbro'. Commended.—Mr W. Walton, Byard's Lodge, Knaresbro'.

GEESE.—First, Mr J. Howard, Killinghall Moor. Second, Mr T. Dunwell, Burn Bridge.

DUCKS (White Aylesbury).—First, Mr C. Dearlove, Yarm. Second, Mr Scriven, Throstle Nest, Otley. Commended.—Mr I. T. Shutt, Swan Hotel.

DUCKS (Rouen).—First, Mr Scriven, Throstle Nest, Otley. Second, J. Greenwood, Esq., Swarcliffe Hall.

DUCKS (Of any other variety).—First, Mr W. Hannam, Wetherby. (Black East India.)

TURKEYS.—First, Mr J. Abbey, Crimble. Second, Mr I. T. Shutt, Harrogate. Commended.—Mrs Wm. Gott, Spring Bank, Harrogate. J. Greenwood, Esq., Swarcliffe Hall.

RABBITS (Spanish).—First, Mr H. Beldon, Eccleshill Moor, Bradford.

ANY OTHER BREED.—First, Mr J. Wilson, Ripon. (Lop-eared.)

EXTRA STOCK.—POULTRY.—Commended.—Miss C. H. Gott. (Ring Doves.) Mr Hughes, Ripon. (Feather-legged Tumblers.) Mr F. Carter, Otley. (White Owls.) Mr F. Carter, Otley. (Black Owls.) Mr F. Carter, Otley. Sky-blue Antwerps.)

THE HOUSEHOLD.

(We shall be much obliged by any of our readers sending us approved receipts in cookery, hints for household management, or any other domestic utilities, for insertion in this department of our columns.)

WALNUT KETCHUP.—Green Walnut husks placed in a deep earthen-pan, with layers of salt between them, let them stand a fortnight or three weeks, then pour off the liquor, and simmer and skim it; put to every two quarts an ounce-and-a-half of whole ginger, the same quantity of whole allspice, an ounce of whole black pepper, and half-an-ounce of cloves, boil slowly about half-an-hour, and when cold bottle it, and keep it in a cool place.—J. J. D., *Holt, Norfolk.*

CIDER FOR BOTTLING.—Take out of a full hogshead of Cider six gallons; dissolve in some of the cider twenty pounds of loaf sugar, add it, with three gallons of pale brandy, to the cider in the hogshead; leave the bung out, in case it should ferment; if it does, rack it into another cask, in which a brimstone match has been burnt, filling it up with cider previously taken out; when it has settled, fine it with half-a-gallon of skimmed milk; in about a week it will be fit to bottle; cork, and wire it, like champagne; bin it in sand, so that every bottle is covered, and in a cellar of from fifty to sixty degrees of temperature. In nine months it will be a most excellent imitation of champagne.

SPARKLING MOSELLE.—If, in making cider, one fourth of the apples were replaced by the White Magnum Bonum Plum, taking care not to break the stone, and proceed as above, a good resemblance to Moselle is the result.

To give it the Muscatel flavour, a small quantity of musk may be used. In Switzerland they make an infusion of the Musk plant.

To IMITATE THE RED HOCK, in Switzerland, they make use of a very large, deep purple Plum, which I have never seen in this country, and one pound of sliced beet root to every pound of apples; and when in the cask, to every three gallons of liquor one ounce of red tartar.

To IMITATE A RED MOSELLE they use a very strong syrup of elderberries instead of the beet-root. This is made by the country people, and sold to wine manufacturers.

ENGLISH TOKAY.—As very few persons make their own cider, a very good red wine may be made from cider thus,—which I call Tokay-ausbruch, and is sold at Vienna at about £1 per bottle:—To about sixteen gallons of cider add one quart of elderberries, about twenty-five pounds of honey, and six pounds of sugar, and ten ounces of red tartar. Boil it, and allow it to ferment in a temperature of about sixty degrees; when done fermenting, then add half-an-ounce of cassia, half-an-ounce of ginger, and five quarts of brandy; place it in a barrel, and fine with isinglass, or two whites of eggs. Bottle when clear, and in twelve months use it.

VINEGAR FROM APPLES.—Take a bushel of sour Apples, cut them up, or pound them, place them in a large tub, they will shortly begin to ferment, then add some water, which they will soon absorb; keep adding, day by day, as much water as they will absorb. At the end of a month, strain off the liquor into a cask; to every gallon of liquor add half-a-pint of vinegar, hot, that has previously been boiled, and reduced from one pint; let it remain for six weeks, and there is an excellent Vinegar.—G. W.

COOKING CUCUMBERS.—The annexed mode of dressing Cucumbers is always practised in warm climates, and is decidedly the best way of treating this generally indigestible, but favourite, vegetable. I sincerely hope your readers will generally contribute such receipts as they have *proved* to be good; as I, for one, consider that the value of garden produce is very imperfectly understood, and still more wasted for the want of proper information respecting the mode of cooking, and preserving for future use, such articles as cannot be consumed when ready. Cut the Cucumber open, and remove the seeds, stuff it with minced beef and bacon, and then bake it. When sufficiently cooked, which may be known by its softness, remove it; now peel the rind off, and serve it with gravy. Cooked in this mode it is delicious, and also innocuous. Very probably, Vegetable Marrow cooked in the same way would be equally good.—W. X. W.

MARKING LINEN.—I pursue the following plan in marking linen, which answers the purpose of a perpetual inventory, and has this advantage over an inventory, that it does not get deranged by the gradual subtraction of articles as they are worn out. On obtaining a batch of articles, say a dozen towels, or shirts, I mark on each of them, first, the number in the batch, and then the name and date, thus, "12 Smith, 9, 55." Now, on discovering one of these at any time I know that there should be eleven other of the same mark in existence, unless the date renders it probable that they have been worn-out and discarded; in which case their absence would give no concern. Whereas, the absence of one in an ordinary inventory leaves no indication whether it be a new or old article that is missing. A combination of the two methods has, of course, all the advantages of both.—LATIMER.

LONDON MARKETS.—OCTOBER 1st.

COVENT GARDEN.

Peaches and *Nectarines* continue a good supply, and the arrivals of hothouse *Grapes* continue unabated. *Apples* and *Pears* of all kinds are very plentiful; there is still a good supply of *William's Bonchrétien*. *Kentish Filberts* are abundant. *Vegetables* and *Flowers* are very plentiful.

FRUIT.

Apples, kitchen, per bushel.....	1s. 6d. to 2s. 6d.
„ dessert	4s. „ 6s.
Pears	4s. „ 8s.
Apricots, per doz....	1s. 6d. „ 3s.
Peaches, per doz....	1s. „ 3s.
Nectarines, per doz...	1s. „ 3s.
Cherries, per lb.	—
Plums, per sieve	4s. „ 8s.
Pine-apples, per lb....	6s. „ 8s.
Grapes, per lb.	1s. 6d. „ 6s.
Melons, each	2s. „ 6s.
Figs	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. „ 10s.
Lemons	6s. „ 8s.
Almonds, per lb.	2s. „ —
Nuts, Filberts, per 100 lbs.	50s. „ 60s.
„ Cobs, ditto ..	60s. „ 70s.
„ Barcelona, per bushel	20s. „ 22s.
Nuts, Brazil, per bushel	12s. „ 14s.
Walnuts, per 1000 ..	9s. „ 12s.
Chestnuts	—

VEGETABLES.

Cabbages, per doz. ..	9d. to 1s.
„ Red, per doz.	2s. „ 4s.
Cauliflowers, per doz.	2s. „ 4s.
Broccoli	1s. „ 2s.
Savoy	—
Greens, per dozen bunches	2s. „ 3s.
Spinach, per sieve....	1s. „ 2s.
Beans	—
French Beans, per half sieve	1s. 6d. „ 2s. 6d.

GRAIN AND SEED.

FRIDAY, SEPT. 28.—The arrivals are moderate this week of all Grain from all quarters. This morning Wheat rules firm with a quiet demand. In Barley not much has been done, but quotations are without change. Oats are held for fully Wednesday's prices, and buyers take sparingly. In other Grain no change to-day.

WHEAT.

Kent and Essex, red, per qr.....	74s. to 84s.
Ditto, white	84s. „ 90s.
Norfolk and Suffolk..	76s. „ 78s.
Dantzic	86s. „ 92s.
Rostock	81s. „ 90s.
Odessa	73s. „ 76s.
American	83s. „ 85s.

BARLEY.

Malting	36s. to 39s.
Grinding and Distilling	32s. „ 34s.
Chevalier	34s. „ 36s.

OATS.

Scotch, feed	31s. to 32s.
English	25s. „ 26s.
Irish	24s. „ 26s.
Dutch Broo	27s. „ 29s.
Danish	25s. „ 29s.
Russian	26s. „ 29s.

BEANS.

Harrow	40s. to 42s.
Pigeon	42s. „ 43s.
Tick	40s. „ 41s.

HOPS.

BOROUGH MARKET, FRIDAY, SEPT. 28.—The demand during the past week has been good, and all fine qualities have met with a quick sale at about the annexed currency. Market firm. Mid. and East Kent, 75s. 108s. to 120s.; Weald of Kents, 75s. 86s. to 90s.; Sussex, 76s. 82s. to 86s.; Country Farnhams and Farnhams, 90s. to 108. Duty, £300, 800.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.
Clover, new	120s. „ 135s.
Ditto, 2nd cut	90s. „ 140s.
Meadow Hay	90s. „ 130s.
Meadow Hay, new 95s. to 120s.	
Rowan	80s. „ 90s.
Straw, flail	30s. „ 36s.
Ditto, machine	28s. „ 30s.

MEAT.

Beef, inferior, per 8lbs.	3s. 4d. to 3s. 8d.
Do. middling.....	3s. 10d. to 4s.
Do. prime	4s. 2d. to 4s. 4d.
Mutton, inferior 3s. 4d. to 3s. 8d.	
Do. middling ..	3s. 10d. to 4s. 4d.
Mutton, prime 4s. 6d. to 4s. 10d.	
Veal	3s. 10d. to 4s. 10d.
Lamb	5s. 4d. to 5s. 10d.
Pork, large	3s. 8d. to 4s.
Ditto, small	4s. to 4s. 6d.

Scarlet Runners ..	1s. 6d. „ 3s.
Peas, per bushel	24. „ 3s.
Carrots, per bunch ..	4d. „ 6d.
Parsnips	—
Beet, per doz.	1s. „ 1s. 6d.
Potatoes, per cwt.	3s. „ 6s.
Turnips, per bunch ..	2d. „ 6d.
Onions, young, per bunch	1d. „ 2d.
Leeks, per bunch	2d. „ 3d.
Garlic, per lb.	6d. „ 8d.
Shallots, per lb.	4d. „ 6d.
Horseradish, per bundle	1s. 6d. „ 2s. 6d.
Lettuce, Cos, per score	6d. „ 1s.
„ Cabbage....	6d. „ 8d.
Endive, per score....	1s. „ 1s. 6d.
Celery, per bunch....	8d. „ 1s.
Radishes, Turnip, per dozen bunches	1s. „ 1s. 6d.
Water Cresses, per dozen bunches	6d. „ 9d.
Small Salad, per punnet.....	2d. „ 3d.
Artichokes, each	3d. „ —
Asparagus, per bundle	1s. 6d. „ 4s.
Sea-kale, per punnet	—
Rhubarb, per bundle	2d. „ 6d.
Cucumbers, each	3d. „ 8d.
Vegetable Marrow, per dozen	6d. „ 1s.
Tomatoes, per punnet	1s. „ 2s. 6d.
Mushrooms, per pottle	8d. „ 1s.

HERBS.

Basil, per bunch	6d. to 9d.
Majoram, per bunch	6d. „ 9d.
Fennel, per bunch ..	2d. „ 3d.
Savory, per bunch ..	2d. „ 3d.
Thyme, per bunch ..	2d. „ 3d.
Parsley, per bunch ..	2d. „ 3d.
Mint, per bunch	4d. „ 6d.

POULTRY.

The supply of Poultry is still below the average, but there exists scarcely any demand. Grouse are scarce, and the old birds far more numerous than the young. There was a moderate supply of Geese; the price of corn was evident in their want of condition, and well fed birds of the best quality made good prices. It may be taken as a rule, where all are equally good, that the value of a Goose is guided by its weight.

Geese.....	6s. 6d. to 9s. 0s. each.	Partridges..	1s. 6d. to 2s. 0d. each.
Large Fowls	4s. 6d. to 5s. 6d. „	Hares	3s. 0s. to 3s. 6d. „
Smaller do.	3s. 6d. to 4s. 0s. „	Pigeons ..	9d. to 10d. „
Chickens ..	2s. 3d. to 2s. 9d. „	Rabbits ..	1s. 4d. to 1s. 5d. „
Ducks	3s. 0d. to 3s. 3d. „	Wild do. .	10d. to 1s. 1d. „
Grouse	3s. 6d. to 3s. 9d. „		

PROVISIONS.

BUTTER.—Cwt.

Dorset, fine	104s. to 108s.
Do. middling.....	90s. „ 96s.
Fresh, per doz. lbs.	12s. „ 13s.
Friesland	98s. „ 100s.
Kiel	94s. „ 98s.
Carlou	98s. „ 102s.
Waterford	98s. „ 102s.
Cork	98s. „ 102s.
Limerick.....	92s. „ 96s.
Sligo	—

CHEESE.—Cwt.

Cheshire, fine	74s. to 90s.
Gloucestershire, dble.	70s. „ 76s.
Ditto, single	60s. „ 74s.
Somerset.....	70s. „ 76s.
Wilts, loaf	63s. „ 78s.
Ditto, double.....	72s. „ 78s.
Ditto, thin	54s. „ 64s.
Ditto, pines	72s. „ —
Berkeley, thin	62s. „ 66s.

BACON.—Cwt.

Wiltshire, dried ..	80s. to 84s.
Waterford	74s. „ 76s.

HAMS.—Cwt.

York, new	80s. to 90s.
Westmoreland	76s. „ 86s.
Irish.....	74s. „ 84s.

WOOL.

Down Teds	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. „ 1s. 2d.
Ditto Teds and	—	Leicester fleeces....	1s. „ 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hog-	—	Combing skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14½ 10s. to 16½; Mimosa, 0½. to 0½. 0s.; and Valonia. 12½ 10s. to 17½ 10s. per ton.

TO CORRESPONDENTS.

PEAR AND PLUM FOR NORTHUMBERLAND (*A Recent Subscriber*).—In addition to those you have, the best for a south wall will be the *Reine Claude Violette* Plum, and the *Glout Morceau* Pear.

COCK OF A COCK (*A Constant Reader*).—How can we answer your query without being first told the variety of poultry to which the cock belongs?

MANURING TURF (*J. G.*).—We think, that instead of raising the turf and manuring beneath it, it would be more effectual if you applied liquid-manure three or four times a year to the surface, and, certainly, it would be much less expensive. We know several instances where the mere repeated application of the house sewage enables the owner to mow his grass three or four times annually.

POULTRY SHOW REPORT (*Orris*).—We cannot publish the criticisms of anonymous correspondents. Such criticisms are valuable only in proportion to the knowledge possessed by the critic.

STORING FILBERTS (*A Subscriber*).—There is no better way of keeping them than putting them with their husks on into earthenware jars, leaving the mouths of the jars open, and placing them in a cold, damp cellar. The Filberts will continue excellent until beyond the next Filbert season.

NAME OF PLUM (*H. R.*).—It appears to be *Coe's Late Red*.

SAXIFRAGA HYPNOIDES.—*A. W.* would gladly be informed where this can be obtained.

KEIGHLEY POULTRY SHOW.—We are informed that Mr. T. H. Bayley's *Game Fowls* were commended at this Show.


BREWING, &c., (*W. C. W.*).—Our correspondent wishes to know the best mode of brewing malt beer, and of curing hams and bacon.

DOUBLE PANSY (*G. B.*).—It is certainly a floral curiosity. It is doubtful whether it will be permanent.

NAME OF FLOWER (*Amicus*).—Your trailing plant is *Loasa lateritia*. It is, by some authors, called *L. aurantiaca*, and by others, *Caiphora lateritia*.

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WEEKLY CALENDAR.

D M	D W	OCTOBER 9—15, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
9	Tu	Feathered Footman Moth.	29.823—29.662	70—43	S.W.	—	15 a 6	20 a 5	4 6	28	12 35	282
10	W	Large Sword-grass Moth.	30.014—29.992	65—54	S.W.	13	17	18	5 17	29	12 51	283
11	Th	Grey Shoulder-knot Moth.	30.297—30.009	62—28	N.W.	—	18	16	sets.		13 7	284
12	F	Brindled green Moth.	30.482—30.454	58—29	N.	—	20	13	5 a 38	1	13 22	285
13	S	Marvel du jour Moth.	30.419—30.333	60—34	N.	—	22	11	5 55	2	13 36	286
14	SUN	19 SUNDAY AFTER TRINITY.	30.291—30.211	56—44	W.	06	23	9	6 16	3	13 50	287
15	M	Scarce Umber Moth.	29.135—30.038	54—37	S.W.	16	25	7	6 45	4	14 4	288

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 59.8°, and 42.2°, respectively. The greatest heat, 76°, occurred on the 14th, in 1815; and the lowest cold, 26°, on the 14th, in 1833. During the period 100 days were fine, and on 96 rain fell.

ASPLENIUM SEPTE'NTRIONALE.



This is known to English herbalists by the name of the *Forked Spleenwort*, a name given to it on account of the form of its fronds. Its specific name, *Septentrionale*, alludes to its frequenting the *northern* districts of Great Britain.

Its *root* is woody, branched, tufted, and furnished with a mass of crooked, fibrous rootlets. From the tufts arise very numerous *fronds*, forming dense patches. They vary in height from two to four inches. The

stalk, which is naked for about half its length, is wiry, and dark green, except at the base, where it is dark purple. The upper part spreads into one, two, or three forked *leaflets*, which are narrow, strap-shaped, upright, smooth, and in colour a dull dark green. Each section of the fork has one or more teeth, and the sections are alternate. The upper surface of each leaflet is furrowed, but beneath, at first, they are covered with long white membranes (*indusium*), originating from the inner edge of the veins, and meeting over the middle. There is no mid-vein, but the veins arise from the base of the leaflet, and run parallel, and divide into as many branches as there are teeth at the end of each section of the leaflet. The *fructification* is dark brown, and as it increases in size, and runs together, it gradually throws off the membrane, and curiously twists the leaflet. The *spores* are ripe in August.

It can scarcely be called a rare Fern, for although it has been found only in the extreme northern and western districts of England, partially in Scotland, and not at all in Ireland, yet wherever it does occur, there it is pretty abundant.

It occurs in clefts of rocks, on mountains, and on old walls, and has been found at Craig Dhu, and Carnedd Llewelyn, and Snowdon, in Wales; on Ingleborough, in Yorkshire; at Patterdale and Keswick, and above Ambleside, in Westmoreland; on rocks in Edinburgh Park; on Stenton Rock, near Dunkeld; and on rocks on the southern side of Blackford Hill, near Edinburgh.

It is not uncommon throughout Europe, but is especially frequent in Germany and Switzerland.

Gerarde is the earliest of our botanists who notices this Fern, and he mistook it for a Moss, calling it "*Muscus corniculatus*, Horned or Knagged Moss." The drawing he published of it, however, shews that it is the same as our Forked Spleenwort. Parkinson recognises it as a Fern, and describes it as the Naked Stone Fern (*Felia saxatilis Tragi*). Ray writes of it under the same Latin name, but also calls it *Horned or Forked Maidenhair*.

It may be cultivated as we have directed for the *Asplenium ruta-muraria*; but Mr. Charles Johnson is quite right in stating that "it is less adapted for exposure in the open Fernery, at least in the eastern parts of England, the evergreen fronds being liable to suffer from frost, and especially during the dry, piercing winds of Spring. It will, however, live and flourish when planted in a sheltered cavity better than under confinement. If potted, a cold, close frame, where it may be

kept with *Asplenium marinum*, *A. fontanum*, and such others, sheltered alike from the sun and cold, will answer for its culture better than the greenhouse, bearing in mind that the absence of all superfluous moisture must be strictly secured, and that the fronds of larger Ferns must not be allowed to spread over it." The tufted crown of the root should be raised well above the surface of the soil, which soil may be the same as for *A. ruta-muraria*.

A MEETING of the British Pomological Society was held on Monday, the 1st inst., on which occasion Mr. Hogg occupied the chair.

A collection of Apples peculiar to the Sussex orchards were produced by W. D. Payne, Esq. They consisted principally of varieties which are cultivated for cider, and, with the exception of the *Forge*, *Anis-seed*, and *Fenouillet Gris*, contained nothing of interest.

Messrs. Shilling, of Odiham, sent specimens of a seedling Apple raised from the Ribston Pippin, which was not yet in season, and was, therefore, left over till the next meeting.

The most interesting part of the exhibition was the examination of a new Peach and Nectarine, from Messrs. Veitch and Son, of Exeter. It was to be regretted, however, that the specimens, of the Peach particularly, were over ripe. The variety is called *Red Nectarine Peach*, and exhibited traces of considerable excellence of flavour; but as the specimens were both more or less decayed, it was thought advisable not to come to any decision as to their merits. The Nectarine, which was called the *Oldenburg*, was of very superior quality, and contrasted considerably with the five specimens of Stanwick in the same collection, which were very inferior in flavour. The *Oldenburg* is a medium-sized fruit, somewhat similar in size to the Elruge. It is ovate in shape, and very much covered with very dark red, except where shaded by the leaves, when it is pale yellow. The flesh separates freely from the stone, is very melting and juicy, with a rich sugary and vinous flavour; it is yellowish-white throughout, and even at the stone there is not the slightest trace of red. The fruit seems to keep well after being gathered, and shows a disposition to shrivel without decaying. The *Stanwick*, though fine specimens, were very void of flavour; indeed, not worth eating. There was no statement under what circumstances the Stanwick was grown; but it is evident that this variety does not succeed equally in all situations, since the specimens sent were very inferior in flavour to those sent to a previous meeting by Mr. McEwen, of Arundel Castle. If the *Oldenburg* and the *Stanwick*, which were exhibited at the meeting, were grown under the same circumstances, and in the same situation, there can be no doubt the former is by far the superior fruit for this country. The kernel of the *Oldenburg* is bitter.

Mr. Poole, gardener to Mr. Bevan, Twickenham, and Mr. Dowling, of Southampton, were elected members.

CRYSTAL PALACE.

(Continued from page 4.)

"THE visitor," says the "Guide to the Crystal Palace," "having reached the Crystal Palace Terminus, quits the train, and ascends the broad flight of steps before him, leading to a covered way called the Railway Colonnade." This is the colonnade in which the climbers, with which I closed last week's notes, are planted. The first sixty and some odd plants are mentioned, and they occupy the first one third of the whole length. If you say they are four feet from plant to plant, and multiply the sixty plants by the four feet, you have 240 feet as the one-third of the length of this colonnade, which makes it 720 feet from end to end. All this length is planted with climbers, or such plants as will bear training against a trellis. I shall follow up the list of plants to the farthest end and across the upper end, but without mentioning more duplicates than struck me as being well-suited as wall-plants.

There are three if not four kinds of *Heliotrope* repeated several times; *Tea Roses* the same; *Scarlet Geraniums* and *Fuchsias* the same also; but the best cold-wall Fuchsia, *Riccartoni*, is not among them.

The next plant after *Rose Fabier* is *Bignonia atrosanguinea*, a name I never heard before. The plant is of the section of *radicans*; *Magnolia grandiflora*; *Fuchsia serratifolia*, the best climber among all the Fuchsias, and flowering all the year round, by pruning parts of it at different seasons; *Scarlet Geranium Firebrand*, a good variety of the Shrubland breed; *Tecoma capensis*, a free-growing old climber; *Ceanothus dentatus*, well-suited for a sheltered wall; *Acacia lophantha*, an old favourite, for its rich and dense Mimosa-looking leaves; white *Azalea indica*, about as hardy as Camellia; *Jasminum affine*, a moderate grower, with white flowers from the Himalaya, not very long since; *Bignonia capreolata*, a good old wall-plant, hardy enough for the climate of London; *Fuchsia fulgens*; *Physianthus albus* seems to grow as fast, and blooms as freely, as a *Cobaea*, the best example of it I have seen; a large flowering double *Nasturtium*, the first of it I have seen; *Lardizabala biternata*, a new, fast-growing, handsome-leaved climber, from Chili and Peru, where its fruit is sold in the markets under the name *Aquilboquil*; all but hardy, if not quite so; *Veronica speciosa*, or some seedling from it; the yellow *Canary Tropaeolum*; *Petunia Shrubland Rose*, a particular favourite all over the garden, where it does better even than at Shrubland itself; a Pomegranate; *Passiflora racemosa*, the common kind; an Orange tree; *Fuchsia Dominicana*, that fine cross between *spectabilis* and *serratifolia*, by Mr. Veitch, and flowers always in winter; *Escalonia macrantha*, which suffered much last winter at Surbiton in the open air; *Billardiera longiflora*, as old as Methusalem, but very handsome, in fruit somewhat like large Fuchsia berries, and of a shining, deep, indigo blue; *Ceanothus papillosus*, well suited for a wall; pink *Nosegay Geranium*, the tallest of pink bedders,—it is here called Purple Nosegay; a good purple nosegay, however, is yet to come; a crimson has also to come; but this breed is now much sought after; *Comptosia glabra*, a beautiful shrub, but the name is too new or too old for me,—I guess it is rather out of joint; *Daphne indica rubra*, the sweetest of the sweet; *Magnolia Alexandrina*, a continental seedling; *Dolichos lignosus*, the fastest grower of all the South African climbers; *Rinchospermum jasminoides*, up twelve or fifteen feet, and full of bloom; *Stauntonia latifolia*, the handsomest leaves of all evergreen climbers, and growing here like a Hop; *Clematis Shellengii*, never heard of by me before; it is very pretty, with large, white flowers turning back at the points, and as thick in substance as a single white Hyacinth; *Datura arborea*; *Tacsonia manicata*, the finest of the race, up to the very top, and

all about; *Cantua dependens*—I should not wonder if this is the very place for it, and if so, it will be the handsomest thing here in ten years. It is now the healthiest specimen of it in the country. *Passiflora palmata*, of the racemose breed; *Jasminum grandiflorum*, a fine old kind, and a slight protection is all it needs; *Geranium Cottage Maid*, apparently a cross from *Com pactum*, and would make a good pot plant.

From this point, a few duplicates bring us to the top corner; the following are across the top, interspersed with such duplicates as have been already mentioned:—*Solanum jasminoides*; three plants of it would cover the whole colonnade in five years. Last winter killed my three years old plant of it, root and branch, but there was no sort of covering over it—a sacrifice to prove a point; *Podocarpus pungens*, a Yew-like plant, doing well; *Chimonanthus grandiflorus*—the delicious fragrance of the flowers, so near to the refreshment tables, will be a relief in winter from the smell of smoking hot joints; *Acacia dolabriformis*, a fast grower, like most of its kindred; *Aemena pendula*, a fine-looking, Eugenia-like plant, new to me; *Geranium Perpetual Nosegay*; two more deeper shades would make this a real purple nosegay. I have seedlings of this strain of a deeper purple than this yet, still not very good purple. There was a very good purplish-red Nosegay raised six or seven years back, which I had from the lady after whom it is named, before I left Shrubland Park, but I have not seen it since. I want it now, as well as *Bignonia venusta*, growing up as freely as a *jasminoides*. It was just coming into blooming age, and flowered twice, at the coldest end of the conservatory at Shrubland Park, when I threw my apron over the wall; but all the hot-headed gardeners say it ought to have bottom-heat, and do as they say. I cut a wreath of it for a ball-room, in 1852, which was fifteen feet long, with twenty-six clusters of bloom. One of the clusters had seventy-four blooms, and the smallest had sixteen blooms; but now it is grown differently, and for winter flowers for Covent Garden; but they are very seldom seen in good colour.

There is another lesson to be learnt in the colonnade; but who will learn it? or, rather, who will not forget it before he or she is half way home from the Crystal Palace? I mean the handling of the border where all those plants have been planted out. It is as bare, from end to end, as this very page; not a blade or leaf is allowed to suck or shade it. Many good gardeners, whom I could name, have set their faces against conservatory walls, because the owners will not allow any good to come of them. You may keep a clear space in front of the Peach-trees, and you are not required to plant Potatoes on the Vine borders; but if you plant a conservatory wall, you must cover every inch of the border in front of it with something sweet or gay, or something very ridiculous, and there is an end of it; or, rather, there is the beginning of trouble that seldom ends in a lifetime.

From the "Climber colonnade" I entered the garden. Here is a row of nine trees of the *Deodar Cedar*, parallel with the colonnade, and round each tree are two or three circles of flowers; but far enough from the body of each tree not to hurt the roots. Thus, they are enabled to give a large, dug space of ground to each tree, and to *Araucarias*, in the grand terrace, without such space either looking raw and disagreeable, or the earth in them impoverished for the roots of the trees. Now, this is an economical point, and a gay one, which comes home to all of us who plant valuable trees on the dressed grass of the garden. There is no doubt as to the great benefit a tree, or shrub, derives from the space occupied by the roots, at first planting, being left free from grass, to be dug or stirred occasionally, and to be watered over, often and often, for the first few years; but as great objections prevail against large patches of raw

earth being seen and under one's eyes, you must either turf up near to the tree, and make annual rings of better soil for the roots as they extend, or do as they have done here, leave open a large circle of eight, ten, or twelve feet across, and hide the raw earth with a few rings of flowers, or dwarf evergreens, next to the grass, after the fashion of ring-beds round statuary. No way is better, or more economical, than this. Three rows of China Asters hide the inner circle of dug earth round three of these Deodars most effectually, three of them are encircled by scarlet Verbenas, and the other three by purple Petunias, "turn about" thus:—Asters round the first tree, Verbenas round the second, Petunias round the third; then Asters again, and so on. All the nine trees were thus encircled, last year, with one kind of yellow Calceolaria, which appeared to me to be rather too much of a good thing for that part of the grounds, and for the purposes intended. I like the present arrangement better. The Asters were very good, and some of them, but not all, were in one distinct colour in each ring. But there is some little defect in the relative heights of the plants in the different rings. The inner ring, next to the tree, ought to be of the tallest kinds, the middle row to be a little shorter, and the outside the shortest of all; but it is next to impossible to make the best of Asters, without first noting down the heights in a given soil.

D. BEATON.

(To be continued.)

GLEANINGS FROM BERKHAMPSTEAD NURSERIES.

I SPENT a part of the 26th of September in these Nurseries. The morning was so cold as to destroy the beauties of the Dahlias, though those on higher grounds escaped comparatively uninjured. The railway station is within a few minutes' walk of the Home Nurseries. A time-table of the London and North-Western should be consulted by intending visitors, as every train does not stop. The readers of this work are already indebted to Mr. Lane for his mode of constructing fixed glass roofs, with strong sash bars, and no rafters, properly speaking. As economy and suitability combined are great matters among many of our readers, I have often thought that the practices and appliances of our commercial brethren would often be of great use, where utility, rather than ornament, were the primary considerations. The chief objection to this consists in the fact, that many people are narrow-minded enough to imagine that an undue prominence would thus be given to one tradesman over another; when, if he wished that prominence, he ought to seek it in the usual advertising columns; thus at once coming to the conclusion, that a notice is quite as good as, if not better than, a high-sounding advertisement. In endeavouring to avoid this, I shall chiefly notice some of those matters of practice which I deem worthy of general consideration.

Since I visited these nurseries, several years ago, quite a forest of pits and of houses have been erected, chiefly for Azaleas and other hard-wooded plants equally hardy, a very small division, comparatively, being set apart for Stove Plants and Orchids. The nursery now, as then, contains an immense quantity of Roses, though this has been a bad season for autumn-blooming ones; but large quarters are now filled with beautiful Deodars, and other genera belonging to the Pinus and Cupressus groups. Larger quarters still are filled with fine, healthy fruit-trees, trained and untrained, while a prominence is given to great numbers of young trees in pots,—of Gooseberries, Plums, Cherries, Apricots, Peaches, Apples, and Pears, for fruiting in pots, either by forcing or growing in cool Orchard houses—a mode which, I have no

doubt, is only beginning to exert its interest and legitimate influence. In the elevated nursery on the common, in addition to commoner things, were large quarters of *Araucaria*, the sight of which confirmed me in a notion long entertained, that there are two separate varieties, as, even now, many plants were as green as leeks, while others standing beside them were quite brown from the roughening of the previous winter; also, rows of variegated Turkey Oak, and beds of Ghent Azaleas and the better kinds of Rhododendrons, growing in the common soil. Those who visit the Exhibitions are aware that the later-introduced Rhododendrons come in great force from this nursery. Where heath-soil is not to be had, it is of some importance to know that, as here, most soils will grow the Rhododendron, if destitute of chalk and matters from the common dung-yard. Our own experience and observation would lead us to conclude, that next to a good heath-soil, kept moist enough, these Azaleas and Rhododendrons do best either in a sandy loam or a very craggy loam, preferring either to what might be called a good kitchen garden soil.

I shall now, at random, select a few particulars.

ORNAMENTAL STANDARD PLANTS.

I noticed great numbers of the Portugal Laurel, Rhododendrons, grafted Azaleas, and weeping Poplars, Elms, &c.; but the chief thing about them was their comparative height, many of the Laurels, &c., having six, seven, and eight feet of a clear stem. Mr. Lane acts upon the principle, that to preserve the standard character, the stems must be of a considerable height, as otherwise, when the head increases in size, the standard character is lost, and you have merely a large bush on a short, stumpy leg. His description brought vividly before me an old Bailie—so rotund above, and so diminutive below, that people never thought about his legs; and he himself had never seen them for years. Now, supposing we commence with a Standard Laurel-tree, four or five feet in height, and allow the plant to extend as much, at least, in diameter, the stem would soon be reduced, in appearance, to some eighteen inches in height, or even less; and thus all the pains would go for next to nothing, as a bush touching the ground would be almost as effectual, in an artistic point of view.

GUTTERS, OR WATER-SPOUTS FOR HOUSES AND PITS.

How unsightly, inconvenient, and expensive, are many of the modes adopted! I need not particularise them. Mr. Lane seems to adopt one mode throughout, though varied in shape and form, according to circumstances. The wall-plate, in every case I noticed, formed the gutter. A slight inclination was given, hardly noticed by the eye, but sufficient to cause the water to pass off freely to the part desired. In narrowish houses, the fruit part of the wall-plate was hollowed out in a semi-circular form. In larger houses, the gutter was made wider, but not so deep. In, or what will soon be, a group of three span-roofed houses, twenty-one feet in width by sixty in length, and now chiefly filled with the specimen Azaleas that so many have seen in London, the wall-plate of the outer two serves as the wall-plate of the middle one, and is merely hollowed out in the middle. When kept painted, the gutter lasts as long as any of the rest of the wood. Wall-plates for these large houses are from three to four inches in thickness. Mr. Lane humourously remarked, with respect to the central house of the three, that it cost him little but the glass roof, as the other two were erected previously; so that he got, as it were, side-walls and wall-plates for nothing. I observed that all the water was conveyed to tanks, but that instead of entering below ground, as is generally the case, and which often causes great

trouble in getting out stoppages, &c., the water was conveyed in pipes a little beneath the surface, and then rose and flowed over the top of the cistern; thus preventing any need of interfering with the cistern, be it metal, slate, or brick-work. A little litter thrown over the ground in winter would prevent all danger of frost injuring the pipes.

MODIFIED POLMAISE HEATING.

I was anxious to see one house here, because it was one of the first cheap houses, with fixed roof, that I had seen or heard of. I forget how many years it is since I saw it, just when it was finished, and listened to Mr. Lane's enthusiasm for the Polmaise system. I have been asking every year about it since, and have always received favourable reports from Mr. Wright, the intelligent foreman. The house is span-roofed, some twenty feet in width, and, I should say, about seventy feet in length; height to the span from the floor about eleven or twelve feet. Several stout larch poles support the centre. The side walls are four feet in height, or nearly so. Larch poles here again support the wall-plates, and the walls themselves consist of half-inch boards, put in weather-board fashion, and seem as good as ever. Near the wall-plate in the wooden wall are hinged wooden ventilators, to open and shut at pleasure. The roof is formed of glass, twenty inches by twelve inches, resting on sash-bars, some three inches-and-a-quarter by two inches-and-a-half, and far enough apart to take in the twenty inches length of square. Air is given at the top by small hinged windows, some two feet in length, and of the width between the sash-bars. There is no stage in the house. About twenty feet of one end of the house is shut off by a glass division, and in this division there is a pit in the centre, and smaller ones on the sides, a narrow path dividing them. Any of our younger friends, with a few strokes on paper, can thus bring the house vividly before them. It has been used, and I have no doubt will be, for a great many purposes, most successfully. I give the description to enable readers thoroughly to comprehend the very simple mode in which it is heated. I may remark, previously, that most of the ends are of glass; so that, with the exception of the wooden sides, the whole space enclosed presents a glass surface. To heat this huge barn-like building, a small furnace is placed inside the house, near the glass division, and fed in the usual manner from the outside, connected with a common-sized flue that passes along the greater part of that side of the house, and terminates in a chimney. The flue, altogether, will traverse from one-half to two-thirds of the length of the house on one side, and does not enter at all into the end divided by a glass division. It is found, that when a fire is applied, that in the whole of this house (glass separated division and all, when it is deemed desirable) there is a striking equality in a healthy temperature, such as could not be expected from such a single short flue in ordinary circumstances. The principle adopted by Mr. Lane, call it Polmaising, or what you will, makes the whole affair certain and simple. The furnace is surrounded by large fire-lumps, and a chamber is formed all round it. On the top of the furnace and chamber a wooden box is placed, but destitute of bottom and top, its use being to throw the heat that rises strongly there at once to the top of the house. An open space at the bottom, around, and, I believe, into the chamber, allows plenty of cold air to rush in and take the place of that which is expended, and rises upwards from the effects of the heat. The flue runs along within a few inches of the wooden side. A few inches from it, on the side of the house, a four-inch wall is built, and, perhaps, six inches, or so, higher than the top of the flues. On this wall, and on a supported medium, near the fruit, common house slates are placed; the divisions being crossed by others. The

slates extend within to two or three inches of the side-boarding. They form a platform for setting plants on. A chamber is thus formed over the flue, with an opening along its whole length, close to the boarded side-wall. It requires no magic to perceive what would be the parching effects on plants on these slates if all were left as just described. This is neutralised by a means similar to placing the bottomless and topless box on the top of the furnace and chamber. The heat from the flue is not allowed to rise immediately over the slates; but is conveyed afterwards to within a few inches of the wooden side-wall by means of a thin, boarded partition. This heated air, therefore, gets at once to the top of the house, over the heads of the plants. On the opposite side of the house, close to the side, on the ground level, are four or five openings, about fifteen inches square, communicating with drains that pass under the floor, and terminating in the chamber below and around the flue. The great evils of heating in chambers—a want of circulation, and a supply of moist air to supply the place of that dried and heated—are thus removed. The end separated by a glass division is easily heated from the other, by opening two glass sashes near the apex in the division, and opening the dividing doors a little. The heated air marches in at the top opening, and the division being furnished with raised pits, or beds, the paths act as drains in returning the cold air to the furnace and flues. On the 26th, the larger division was chiefly filled with Vines, and other fruiting trees, in pots. In this place, the early cut Roses that have been sent to the Horticultural Society have been grown, and many others forwarded for the purpose of getting early cuttings. In the glass-separated division I found, in addition to other things, some beautiful Fig-plants, in eight-inch pots, bearing profusely, many swelling off as many as a dozen of fruit, and a few nearly double that quantity. These were plunged in sawdust; but had received no artificial heat. It is in this division that the fine Rose-bushes for exhibition in May, &c., have been grown for many years. The bottom-heat they receive from the sawdust is very slight, and the only other heat they receive must be procured by opening the windows and doors of the glass division. I must not mention the small quantity of fuel consumed. With all our love for hot-water, and our desire for its progression, the fact here stares us in the face, that results are attained by a small furnace and a short flue, to accomplish which the boasted improvements of the age would demand a large boiler, and from two to three hundred feet of four-inch pipes, and even this is not the simplest and cheapest-heated structure in these grounds.

R. FISH.

(To be continued.)

FAWSLEY PARK.

THE SEAT OF SIR CHARLES KNIGHTLEY, BART.

I WAS called upon somewhat suddenly to attend as a censor at Daventry, a small, ancient market town in Northamptonshire. There I had the pleasure to meet with Mr. Fish as a fellow-judge; and, I believe, he will, in his pleasing way, give an account of how they manage their exhibitions in such a retired nook of the empire. I cannot help, however, giving the managers of the Exhibition of Fruit, Flowers, and an immense quantity of Vegetables, due praise for their excellent management. Everything was in its place ready for us before eleven o'clock, and everything was so well arranged, that we had quite a pleasant task in adjudging the prizes. Each class was arranged together, so that the judges could at once determine which was the best. Having said thus much, I leave the rest to my good friend to describe.

I there met with Mr. Brown, gardener to Sir Charles Knightley, and he very kindly invited me to ride with him home, stop the night, and see Fawsley Park Gardens, the Park, and the Farm. I accepted his offer, and spent six or eight hours very pleasantly the next day in viewing the place. I was so much pleased with what I saw, that I took notes, and now sit down with quite as much pleasure to describe the place.

There is a wise principle given to man by his Creator, and that principle is imitation. Whatever we see our fellow-men do, we, perhaps almost unconsciously, are inclined to do so likewise; and though this principle is often abused by men of vicious inclinations setting a bad example, which weak minds are too ready to follow, yet that is no reason why good examples should not be followed and imitated also. Hence, when the writers of *THE COTTAGE GARDENER* describe good gardening, it is to be hoped such good practice will be imitated by our readers. I know, positively, that descriptions of places and good gardening are always read with avidity, and, no doubt, have a tendency to stir up others to render their gardens equally worthy of notice.

Fawsley Park is situated in a secluded part of Northamptonshire, five miles from Daventry, and ten miles from the Weedon Station on the London and North Western Railway. There is an omnibus meets the train leaving London at half-past six p.m., arriving at Weedon soon after nine. The omnibus reaches Daventry about ten, and a conveyance must be hired there to reach the Park. This will give some idea that this place is far removed from noise and smoke. It is one of the sunny spots of old England which the manufacturer and the railway king have not as yet invaded. The Park, generally, is well wooded, and the land very fertile.

The mansion stands on an elevated platform of land, with a valley to the right and the left. In the bottom of that valley is water, so managed that it appears twice as large as it really is. In the distance, hills are seen clothed in places with woods; thus there are the four grand requisites of a pleasing landscape—hill and dale, wood and water. In the Park, I noticed many noble Oak, Elm, and Beech trees placed very judiciously in groups of sometimes a dozen, sometimes half that number, and now and then a single majestic tree, backed in the distance by the dense masses of a forest. Truly it is a Park, with its undulatory surface of the most pleasing character. Crossing it from the farmstead, I ascended a gentle hill, and came upon a wide, open space, when the mansion burst upon my sight, with its embattled towers rising amidst trees, and backed by a dense wood. The effect was truly delightful. Descending from this open spot, I crossed the water, and wended my way up to the tongue of land on which the house stands. I found it, at one end, an ancient building, with Saxon windows, and the other in a more modern style. Had the modern part not been there, I could have imagined I had dropped upon some ancient monastery. I understood the Protector Cromwell once resided here, and a turret was pointed out to me, in the top room of which it is said he signed the fatal warrant for the unhappy King Charles's execution.

In front of the house, at a proper distance, is a group of ancient Elms, surrounding a rather large and handsome church, the parish church of Fawsley. Few country churches are so handsome and in such good repair. It is ornamented inside by many noble monuments of the noble owners of this place, proving that the estate has been in the family of the Knightley's for centuries back. At one end of the church is a very ancient Yew. I measured the base near the ground; it is nearly twenty-two feet in circumference, and must be, at least, a thousand years old. I am sorry to say, however, it is in the last stage of its long life; the

branches on one side are dead, but the other still continues to grow. A more venerable relic of antiquity does not exist.

The gardens are placed behind the mansion; a broad, winding walk on the skirts of the wood above alluded to leads to it. On the left hand, I noticed several very fine trees, especially some noble Larches, some of which presented a very singular appearance from being clothed with our common Ivy. This evergreen parasite has so grown, that it forms quite a lofty green pyramid nearly to the summit of the trees. So regular were the branches disposed around the supporting trees, that they almost appeared the work of art. The most assiduous trimmer with shears could not have more effectually and evenly formed them. Yet the trees appeared healthy, though upwards of a hundred feet high, and ten feet in circumference at the base. On the right hand, was a noble grove of trees of considerable size and extent. Some years ago, the common underwood was all stubbed up, and the space planted with common Laurels. These have grown well, and are kept down by pruning to four or five feet in height. The eye of an observer can thus look over them and see all the stems of the noble trees perfectly. I was told this was an excellent preserve for pheasants. Independent of that, it had, to me, a very pleasing appearance, and is an example of evergreen underwood worthy of imitation. This walk is terminated by a dense arch of Hornbeams, at the end of which is the entrance to the gardens, the site of which is most judiciously chosen, being neither too high nor too low. The ground slopes gently to the south. It is laid out in the old style; that is, with broad, straight walks all round, within a proper distance from the walls to allow borders for the fruit-trees, and two equally broad walks crossing each other at right angles in the centre, in which is placed a large circular tank filled with water to supply the garden. These walks are formed with green turf, which, in fine weather, is a most delightful carpet to walk upon, though objectionable, of course, in wet weather, or on dewy mornings. On each side of the cross walks is a broad border filled with flowers in the mixed style, which style Sir Charles prefers, though I could not help thinking these straight borders afforded a fine opportunity to exhibit the ribbon style of planting, so much followed at Trentham and other places.

I was informed this garden was formerly thickly covered and shaded with large, old Apple and other fruit-trees. These Mr. Brown has been allowed to cut down and replace with young trees. In order to prevent the garden ever being again shaded, he has adopted a mode of keeping them within bounds, and rendering them handsome objects. I cannot say whether the method is original; but this I know, that it is not common, or generally known. He planted maiden trees, that is, such as have not been cut back. He then had a strong iron rod formed into a hoop of six or seven feet diameter. Four or five strong Oak posts were driven into the ground in a circle round each tree of the same diameter as the iron ring. These posts stand out of the ground a foot, and the hoop is fastened to each by an iron staple, holding it firm and even from the ground. As the lowest shoots grew they were fastened to the hoop with strings; the next tier to the first, and so on, as far as the trees have progressed. The tiers of branches are laid in so thin that there is plenty of light and air to ripen the wood, perfect fruit-buds, and ripen the fruit. The intelligent reader will understand, at once, Mr. Brown's aim; namely, to form his trees into perfect pyramids, well furnished on every side with fruit-bearing branches, and thus be enabled to produce the greatest quantity of fruit in the least possible space. I think such trees, so trained, will be handsome objects of themselves, and thus not so formal and straight-laced as the espalier mode of training.

The wall-trees were also in the same condition; that is, old and past bearing. These have been all removed, excepting a few Peach-trees, and new borders made, and young, healthy trees planted, which are making good progress. By removing these old trees, and trenching the ground, the garden is quite renovated, and now produces excellent crops of bush-fruit, Strawberries, and abundant crops of vegetables.

T. APPLEBY.

(To be continued.)

EFFECTS OF A DRY AUTUMN, AND OTHER MATTERS.

HOWEVER pleasant a dry autumn may be to the holiday makers, and also to the majority of working people, there are some ways in which it is anything but suitable for the purposes of cultivation; and, at the time I write (the end of September), many of our grass fields show as little signs of life as the scorched-up weeds by the side of a hard path continually trodden on; for we have scarcely had any rain since the beginning of August; and a considerable part of the time has even been hot, the thermometer, for several days, being upwards of 80°, and on the 23rd it was 85°. Some slight showers about the 1st of the month, again a little on the 16th, partially revived vegetation, and, what was equally useful, encouraged the germination of seeds; otherwise the progress of many things has been suspended entirely. That a start will take place when we have rain, I have no doubt, unless it be exceedingly late; but I do not like such late growths so well, because, being rapid, and immediately preceding severe weather, the tissues of the plants have not time to become hardened before they are subjected to the inclemencies of the season; however, there is generally a wise counterbalancing, very sharp frosts seldom setting in immediately after heavy rains, and our Brocolis, and other things, may possibly have time to perfect their autumn growth before the icy king fairly asserts his supremacy.

One thing seems certain, that the delay in the autumn growths of various things, in light soils, will make our *Cape* and other *Early Brocoli* less useful than in most seasons; while *Celery*, *Endive*, *Lettuce*, and many other things, have been equally delayed. Now, as the majority of gardens and crops cannot by any means receive artificial irrigation, those in very dry districts must necessarily be suffering as described; however, there are some advantages even in this state of things. The fine weather has ripened most of our fruits well. *Tomatoes*, which in some seasons, especially in 1852, became diseased, similarly to the *Potatoes*, and ripened few fruit worth caring for, have done well this year. *Wall Fruit* trees will also have the chance to ripen their wood well, as they have done their fruit; and there is strong probability of *Orchard Fruits* doing the same. The presence of sunshine, with a clear, dry atmosphere, will, doubtless, be duly appreciated by them, as well as by the more tender; and though, as stated above, most of the vegetables common at this season have been hurried into an early autumn, *Seeds* have vegetated well where watering and shading were adopted; the warmth of the ground having more to do with them than undue moisture; crops of late *Lettuces*, *Spinach*, and the like, coming up as well as in July; while it has been an excellent season for the destruction of weeds.

On the other hand, it must be confessed that flower-gardening has suffered much from the continuance of dry weather. Beds of *Verbenas*, which ought to have presented, by this time, a uniform mass of bloom, have little more than a multitude of half-ripened seed-stems. *Petunias* have done better; in fact, they look well, the white especially; and the *Variegated Geraniums* look very well, especially *Mangle's* and *Flower of the Day*. *Scarlets*

have not done so well as expected; the growth of the wet season (July) was followed by an abundance of bloom in August, but that was sooner over than usual with us; and the exceeding dryness of the weather has prevented more bloom forming, so that they are far from gay at the present moment; neither have they advanced much in growth since the end of August, which is remarkable, as the Scarlet Geranium requires less moisture than anything else in the flower-garden. *Culceolarias* have suffered, likewise, the half-herbaceous kinds especially, and the shrubby ones are not so good as usual; the fact being, that where plants have not had a considerable share of moisture, nor a deep soil in which to find it, they have done badly this hot weather; but I have seen some flower-beds, in a moist situation, where their roots may be supposed to dip into a stratum on a level with the adjacent water, than which nothing could be finer; and they give promise to last the season. These facts confirm the necessity for having a good depth of tillage-ground for all purposes where luxuriance is wanted, for it is surprising how deep some plants will search for their food. On trenching-up some ground, a few days ago, which had been Onions the present season, the ground was tolerably closely matted with their roots for nearly the depth of two feet, and occasional roots much deeper than that, the crop being very good. However, as some remedies may be applied in a dry season, or preventive means used to secure a crop, a glance at a few may not be out of place.

On very dry soils, a deep cultivation is more wanted than on any other; for even the dry, barren substratum which forms the subsoil, will, if broken up in time, become fertile, by receiving the drainage from the working part above. Dung and other manures being more or less plentifully placed on the top part, become filtered by heavy rains, their juices running into the substratum, and thereby being lost, unless the roots of plants have access there. When, therefore, no additional matter can be placed on so as to increase the depth of good mould, which, in many cases, cannot be done, the subsoil must be broken up, but not brought to the top; this will enable roots of tender plants to penetrate deeper than usual; for, however uncongenial the material may be to the wants and well-being of vegetation, it will, in time, become more fertile, and plants will, at length, send their roots into it with avidity.

The result most to be feared in a dry, warm autumn, like the present one, is the after-growth of vegetables, and of tender or half-hardy plants, which is likely to take place when we do have rain; for, unless it be very late indeed, the warmth of the ground is such that rain is sure to start many things into a growing state again; and a rapid or hasty growth in the latter part of October or November is not the way to secure a plant against the attacks of frost; on the contrary, such young growths are sure to fall a victim to them, and a corresponding loss, or injury, will follow; but this may be modified by the gradual approach of cold weather, checking the growth and hardening the tissues of the plants; so that we may, after all, not suffer so much as we apprehend.

Amongst plants which have benefited rather than otherwise by the warm weather setting in when it did, I believe none felt it more than the *Potato*, which, though not attacked with disease until late, yet showed undisputable tokens of it in the early part of August; but dry weather setting in soon after, the disease appears to have ceased altogether, for I do not hear of it advancing any further; and, certainly, around here its ravages have been less this season than for many years past; but the crop has not been an abundant one, the tubers being, generally, smaller than usual. A good crop of Potatoes being at all times an important item in the general bill of fare, it is somewhat fortunate for cottagers

and others, the present season, when provisions are so dear, that they should be more plentiful than at other times. What have been taken up seem also to keep well, the disease appearing to be arrested prior to taking up, or the vital energies of the plant to have triumphed over it; certain it is, the crop is not materially hurt by it this season in many places around here.

A dry autumn affords an excellent opportunity for pushing on many of those improvements or alterations which, from time to time, become necessary; and though the ground be dry, still the heavy dews we have will feed and encourage *Evergreens* to grow in most situations they may be removed into; while the early ripening of deciduous trees will speedily render their removal a more certain source of success than if left until later; while all works involving the shifting of large quantities of earth, or other material, cannot be better done than in dry weather; and the season is so far advanced now that we may reasonably expect *turf* not to suffer when taken up and relaid again, even without the aid of water, which, in a dry autumn, is not always the most abundant thing in the world.

The breaking up and re-forming of *Walks* might also be done now, or new ones made, or any trenching or other ground-work might be proceeded with, as the case requires. In planting out such things as *Cauliflower*, *Cabbage*, *Lettuce*, and the like, a little water given at the time is all that is required; for the autumn dews, with such moisture as the ground always contains, will suffice to keep the plants growing until rain sets in; and as the operation of planting can be accomplished without that poaching of the ground which takes place when wet; besides which, a dry autumn exercises a useful influence over the soil, in pulverising it, and rendering it much the same service as a sharp frost does, with the additional advantage, that it often penetrates deeper, and does not at any time impede operations thereon.

Although it is possible rain may set in before these pages reach the reader, yet appearances so far bespeak a dry season, which, if so, the results above will, no doubt, have been felt by many having a dry soil to work on,—one not sufficiently deep to allow the roots of plants to descend for that moisture denied them above. This, as well as many other reasons, calls aloud for the energetic cultivator to deepen, by some means or other, his tillage.

J. ROBSON.

NOTES FROM PARIS.

THE HORTICULTURAL EXHIBITION.—SEPT. 25.

In the ornamental department of the Horticultural Exhibition here, there is a mode of arranging cut flowers, such as *Gladiolus*, which claims a passing notice, not only because of its novelty, but also because of its excellent effect; at least, when the work is well done.

As I formerly noticed, there are several round tents, the bottom of which is filled with loose soil in the form of a mound, and it is chiefly in these tents that we see the arrangement in question. In the centre is placed a large ornamental plant, as a Fan Palm; then so many common *bottles* are partly embedded in the soil round the centre, and at about six inches from one another. Three or four branches of *Asparagus* are placed in each bottle, and so many spikes of *Gladiolus* are added. In the same way, other circles are continued to the circumference, which is formed by a broad border of China Asters, or other flowers contrasting with the *Gladioli*. Between the circles there is sufficient space for the workmen to obtain a footing, and the bottles are replenished from time to time, as may be necessary. Though the idea did not occur to me at the moment, I should suppose these bottles are also filled with water; but, in any case, they form excellent supports for long, branchy flowers. No doubt the *Asparagus* branches are intended to conceal them; but they also help much to increase the effect of the

richer colours. It will be observed that this is somewhat like the manner of arranging flowers in bouquets; but, so far as I have seen, it does not present the variety of colours which we find in a mixed collection. It is, however, well adapted for displaying the individual flowers, as well as for giving a brilliant *ensemble*.

In England we group our plants and flowers in sloping banks. The French have a decided preference for the circular arrangement, and this is seen in beds and borders, as well as in hand-bouquets, on each side of the Channel.

In the flower and plant department of the Exhibition there is but little now to be seen, except the *Gladioli*, *China Asters*, *Dahlias*, and similar late kinds. Only one or two small collections of *Dahlias* have been exhibited, but these are very fine.

The display of fruits and vegetables has much improved of late. Nothing could be better than the collection of vegetables contributed by M. Vilmorin; or the *Melons*, *Gourds*, and *Pumpkins*, sent by M. Godat, market-gardener at Versailles. So many good examples of *Cucurbitaceæ* are very rarely seen together. Unfortunately, however, only a few of them have the names attached, and these are all in French. I shall, therefore, just mention the more-readily recognised ones. These are the Bottle Gourd (*Lagenaria vulgaris*), called here *Coloquinte*, evidently a corruption of *Colocynthis*, which the French pronounce nearly in the same way; *Giroumon tourban* (*Cucurbita maxima*), a large, red variety, of a turban-like form, and much used here, as elsewhere, in cookery; *Melon de Morée*, a small, speckled, green variety, said to be of Grecian origin; *Melon de Honfleurs*, a large netted sort, raised at Honfleurs, a small town near Dieppe; *Melon de Malte*, an oval, green variety, about eight inches long; *Gourge vert de Constantinople*, a large, green sort, much warted, and of a long, irregular form: its average length is about thirty inches; *Galeuse d'Afrique*, also a large, green, and densely-warted variety: its general form is very irregular; *Gourge de Virginie*, about two feet long, oval, very dark green, and thickly studded with large warts; *Coloquinet pyriforme*, a small, roundish, pale yellow sort. Two fine specimens of the Water Melon (*Cucurbita citrullus*), each weighing thirty-seven pounds, have been contributed by the Spanish Ambassador. It may be useful to observe that this Melon has several names in French, as *Citrouille*, *Melon d'eau*, and *Pasteque*.

Several new collections of fruit have lately been sent, and fresh samples have replaced those which were getting out of condition. M. Leoret has contributed some choice Pears, as *Beurré de Capiaumont*, *Passe Colmar dorée*, *Belle de Flandre*, *Doyenné gris*, *Doyenné d'automne*, *Burré d'Amaulis*, *Belle Alliance*, and *Colmar d'Aremberg* (on branch). M. De Liron, near Nantes, has sent *Beurré fauve*; *Beurré de Nantes*, a beautiful variety, about four inches long; *Besi Quessoi d'été*, copper-coloured, and apparently an excellent sort. M. Alphoy has contributed a new variety of Peach, raised from seed, and not yet named. It is of moderate size, and good colour. M. Gaudry has *Colmar d'Aremberg*, *Duchesse d'Angoulême*, *Beurré Hardy*, *Bergamotte d'Esperin*, *Beurré de Capiaumont*, and *Williams*. The last is a large, and rich yellow variety when ripe, a great favourite here, and somewhat common at present; but I have some misgivings as to the name, which I think ought to be "William's Bon Chretien." The samples in M. Gaudry's collection measure nearly six inches long. A small collection of Peaches and Nectarines have been shown by some one whose name is not given. The varieties are "*Galaude pointe*," *De Molte*, *Blanche d'Amerique*, *Alberge jaune*, and *Montrieul*; the last variety is very common in the markets at present, as it has been for some time past. The Nectarines are *Brugnou Chauvière* and *Brugnou violette*. M. Victor Eudes has some fine examples of *William*, *Marie Louise*, *Duchesse d'Angers*, and *Colmar d'été*. M. Godat, already mentioned as the exhibitor of Melons, has sent *Beurré Tauban*, a beautiful, large, orange variety; and *Beurré d'Angleterre*. The latter is a particular favourite here, and it is the most common variety in the markets at the present time. M. Cochet has *Beurré Leon Le Clerc*, sometimes called *Van Mons*, *Belle et Bonne de Zée*, *Louise Bonne*, *Martin d'été*, and *Bon Chretien d'été*, a fine variety, readily distinguished by the peculiar position of its stalk, which seems as if growing at right angles with the fruit. In M. Leroy's collection on the

branch, the principal sorts are at present *Heliote Dundas*, a very beautiful rose-and-yellow variety, of moderate size; *St. Francis*, a little larger than the preceding, but of the same rich colour; *Doyenné défais*, also very pretty; *Paternoster*, green; *Thompson*, and one or two others.

The fruit growing on the trees, planted in the spring by MM. Jamin and Durand, and also by M. Defresne, form one of the best features in the Exhibition. The former of these collections contains *Doyenné Boussoch*, *Belle de Flandre*, *Bergamotte de Bruxelles*, *Beurré Hardy*, *Belle et Bonne*, and a new variety, called *Beurré Lesbre*.

In the compartment of M. Defresne there are some excellent examples of choice Apples and Pears. The former comprise *Belle Dubois*; *Belle de Brabant*; *Colville blanc*; *Alexandre*, a fine, large, speckled variety; *Reinette de Canada*; *Reinette d'Angleterre*; *Pigeon d'hiver*. The Pears are *Louise Bonne d'Arranches*, a beautiful red and-yellow variety; *William*, *Crassane d'hiver*, and *Bergamotte de Bruxelles*. The trees on which these fruit are growing have been trained in a variety of ways, and most of them are quite young. Those at the borders, in particular, have their branches tied down in a horizontal direction, and as low as ten inches from the ground. Those in the middle rise as high as ten feet, and they are all well fruited.

The weather has continued fine almost without intermission for nearly two months; and though we are near the end of September, it is still warm, and sometimes even hot.

I shall just add, in the way of a literary note, that M. Carrière, Chef des Pépinières au Museum d'Histoire Naturelle, has lately published a "*Traité général des Conifères*," in which he has given a description of all the species and varieties yet known, with their synonyms, culture, and propagation. This is an octavo volume extending over 630 pages. The first part includes a descriptive enumeration of thirty-eight known genera, comprising about 400 species, and a great number of varieties. The second part treats of propagation, historical notices, &c. The work is published at ten francs.—P. F. KEIR.

DEEP CALLING UNTO DEEP.

By the Authoress of "*My Flowers*."

(Continued from Vol. XIV. page 425.)

I CAN well imagine that some parents are rather anxiously expecting the remainder of the tale I commenced in my last paper. Those who have sons going forth into the wide and wild world, whether they are steady or not, must feel as Job felt when his sons and daughters were eating and drinking together; and blessed are those parents who dread lest their children "sin and curse God in their hearts," and who are continually prostrate before the throne of grace, pleading and interceding for them.

Young Gresham returned home under circumstances of the most afflicting kind, and though his agonised parents sought to ascertain his innocence, fully believing that he was incapable of such a transgression, yet their efforts only ended in deeper and more hopeless sorrow. The beautiful and Christian submission of this afflicted couple was extremely affecting to those who witnessed it, and set forth a bright example. There was no word of murmuring heard; it was received as a chastening from a Father's hand, and the rod was borne meekly. But the health of Mrs. Gresham suffered. She was not strong, and a complaint that had been for some time threatening, derived increase from the struggles of her mind.

Young Gresham's conduct on returning home did not tend to soothe the hearts of his parents. He was greatly wanting in feeling, and did not display that deep sense of his sin that gives hope of amendment—the only reparation a child can make to injured parents. He was, of course, unfitted for any other life than that of a sailor, and there was now nothing but the merchant service open to him. In this he was placed, and he again quitted his home and country, but under, alas! far different circumstances from those of his two first departures in the noble Wooden Walls of England's external strength.

Mr. and Mrs. Gresham placed another son also in the navy, previous to Seymour's return. Frank Gresham was more thoughtless and boyish than his brother had been at his age, but he was going on well; and they fondly hoped Seymour would learn a deep lesson from his own past errors, and go steadily forward in the new path in which he was now moving. But he never wrote to his parents; he had wounded them till their hearts had bled; but he never relieved or comforted their sorrows by words of repentance or remorse from the distant waters; and they only knew of the vessel's going and coming by the brief notices in the public prints. Let me here speak a word to the *young*, who may be said to hold in their hands the happiness of their parents. Some youthful and careless eyes may glance over this page, and may, perhaps, be placed in circumstances somewhat similar to Seymour Gresham. Let them lay deeply to heart the *duty* of writing regularly to their parents. It may seem a small matter to insist upon, but to those who have borne and nourished them, it is a matter of the deepest concern, particularly to a *mother*. Let sons think of their *mothers*, who have watched and waited on them before they knew their voice—who have lulled them and comforted them from the cradle, and have nursed them through all their childish years, and troubles, and waywardness, with patient and untiring tenderness; and let them count no trifle *little*, and no sacrifice *great*, that can minister to that loving mother's happiness, or screen and preserve her from the slightest grief. And *letter-writing during absence* is a great and necessary part of a son's duty to his mother, because it adds so greatly to her peace and happiness.

Mrs. Gresham's health sunk under the heavy stroke of her son's conduct. She had a devoted husband, and a sustaining God, and her departure was sweetened by this first and secondary blessing; but she was taken away, and in mercy, for it was from "the evil to come."

Alas! for the desolate widower. He had now to bear the burden of life alone—the "help meet for him" (and very meet she was) was, in inscrutable wisdom removed, and he was thrown more fully than ever upon Him who emphatically says, "My grace is sufficient for thee."

Mr. Gresham had soon cause to adore the mercy that removed his beloved wife from added woes. Very quickly, Frank, his second son, was also dismissed the service in consequence of misconduct, although of a less distressing nature than that of his brother, and he, too, returned home to the roof of his distracted father.

This fresh trouble very sensibly shook the earthly tabernacle of Mr. Gresham. It seemed as if "Deep was calling unto deep" to overwhelm him; but though the father cried aloud in bitterness of grief, the believer was dumb before his God. I have reason to think that Frank grieved over his fault—it was one that many youths of much promise might fall into and rise again; but in naval service it cannot be passed over; it must be heavily chastised, or fearful consequences might ensue. The youth of his son gave Mr. Gresham hopes for him; he was a child of many prayers; the experience he had had might, by God's mercy, be blessed to him. There was a gleam of hope amid the darkness.

Mr. Gresham had an only daughter, a girl of sickly constitution, over whom his departed wife had watched with continual anxiety; and this frail life was committed to his charge entirely. A father, though the tenderest, is but an indifferent nurse; it is not man's vocation, and they cannot tell how to watch closely and efficiently. But this daughter, sickly as she was, was balm to her father's heart. She was, like her mother, deeply impressed with religious influences, steady and quiet in her worldly habits, and entering with deep feeling into all her father's sorrows—in fact, ministering to him, as far as she could, in the place of her lamented mother.

Frank entered the Merchant Service, and went on a voyage to the East Indies. But he lived not to return. Cholera attacked him during the vessel's stay on the coast, and he was committed to the grave beneath the burning soil of India. The intelligence of this event was the forerunner of a personal affliction to Mr. Gresham. Paralysis seized him, and he was long struggling beneath its influence. It pleased his Heavenly Father to raise him up

again; but he was effectively shaken—almost a wreck upon the stormy waters. His appointment had before been given up—his mind could not support double exertion; and he now quitted his home with his sickly daughter, to seek a spot favourable to her health, who was become everything to him.

Job was not forsaken of God when he was stripped of all his children, and all his possessions. He was not loved little, because he was tried much. The worldly man's troubles are sore and heavy stripes, because there is for him "no balm in Gilead;" but the child of God knows they are needed—he knows where healing ointments are to be found; and he has the blessedness of knowing that there is a time, and a place, from which "sorrow and sighing shall flee away." The stones of the temple were shaped and chiselled at the quarry—they were polished and prepared before they were built up to the Lord's house. Let the afflicted in Zion remember this, and take comfort. The Lord has no pleasure in the sufferings of His people; but He must prune and head down the choice plants. The worthless ones are rooted up and thrown away; but the choice ones are "purged that they may bring forth more fruit." May we all strive so to live that the strokes we receive may be *pruning* strokes from the Hand of a *reconciled Father*.

INVERARY.

I HAVE but just returned from the Highlands, where they are very backward in getting in their crops; in some cases the hay crop is not yet finished, and the grain crops are all intermingled the one with the other. I was visiting, also, the garden of His Grace the Duke of Argyll, at Inverary, under the care of Mr. McFarlane. The garden is celebrated for its *Portugal Laurels*, two of which are eighty-two yards in circumference, and the trunk of immense size. The *Firs* (silver) were very fine, one in particular, 120 feet high, and as straight as a line. His *Pines* were very backward and poor. His *Grapes*, White and Black Hambro', pretty fair; but very small bunches. His *Peaches*, *Nectarines*, *Apricots*, plentiful; but very small. *Apples* and *Pears* in abundance. *Plums*, none.—W. H. WARNER.

QUERIES AND ANSWERS.

GARDENING.

GATHERING CRASSANE PEARS.—FRUIT OF CRATÆGUS ORIENTALIS.

"1. I have about two dozen very fine *Crassane Pears* on one of my trees; ought I to gather them *at once*, and keep them for some time, to ripen in-doors, or let them hang for some time longer?"

"2. *Cratægus orientalis*.—I sent some berries of a shrub to my nurseryman, in Reading, last week, and he named the tree as written above. It is covered with the most beautiful scarlet berries, about the size of a Siberian Crab, and in *form* like the common fruit of the Hawthorn. What use can these berries be put to? Are they good for eating, or preserving in any way? It seems a pity to let them lie and rot on the ground.—WILLIAM OF WYKEHAM."

[Whenever your Pears will come off by merely raising the fruit in the hand, separating freely from the branch, they are ready to be gathered, but not before.

The fruit of *Cratægus orientalis*, or Eastern Azarole, is good to eat, and of an agreeable flavour; but we are not aware that there is any mode of preserving them. When they are fully ripe they have the flavour of Medlars.]

RED ROMAN NECTARINE.

"Among other trees, on a glass-covered wall, I have a fine, healthy, Red Roman Nectarine, that has had, this year, about eight dozen fine-looking fruit on it, that appeared all you could wish; but when gathered, were all of them quite tough, like fruit that had been gathered before ripe, though some remained on the tree till quite shrivelled. Do you think they may be better another year?—A SUBSCRIBER."

[Perhaps you are not aware that the *true* Red Roman

Nectarine is one of those varieties which hangs till it shrivels, and that many prefer it in that state. We so prefer it, and no doubt you will also, provided it is in the shrivelled state we presume it to be.]

STAKING PLANTS.—*DIELYTRA SPECTABILIS*.— BORDER UNDER TREES.—RENOVATING A LAWN.

"What supports do you recommend for tying up border flowers, as Phloxes, &c., &c.? The one stake, with the plant tied up all of a bunch, is very ugly, and must be bad for the plant, as the centre can get no air. I was thinking of having a miniature tree fence made; but, then, where there are many plants this would be expensive."

"[Border-flowers " are very badly managed, in respect of tying up, by ninety-nine persons out of a hundred; and the fault of all this lies at the front doors of the honourable advocates of mixed gardens, mixed beds, mixed borders, mixed herbaceous plants, and mixed everything, except bad seeds with that which is good. Go where you will, and you will see Phloxes, Larkspurs, and all manner of plants tied up birch-broom fashion, that is, a bundle of shoots tied up to a hedge-stake thrust into the middle] of the bundle, and the tying so close that the flowers seem as if they were actually squeezed up out of the soft parts of the plants by the tightness of the tie. Every herbaceous plant which requires a stick should have it, and no more, if one will do; and one stick may do for every plant which has no more than four stems; but the four stems are not to be tied "all in a bunch," but each stem must have its own tie; thus, take a tie-string, or piece of matting, and put it round the stick first, and draw the two ends of the tie to *your own side of the stick*, when you want to fasten a shoot *on the side opposite to you*, then make a firm knot on your side of the stick, and return the two ends of the tie, one *on each side* of the stick, and then get the ends round the shoot you mean to tie first, and make a firm knot at the back of it, on the side farthest from you, without drawing the shoot from the perpendicular; the shoot is now in a loose loop, and the three or four shoots must have each a separate tie in the same way; not, however, from the very same place on the stick; some may be higher and some lower than the first tied, and if the shoots are tall and heavy they may want more than one tie. The next kind of tie is three sticks at equal distances, not quite at the outside of the shoots to be tied, but nearly so, and a string is run from stick to stick in one or two places; this leaves all the shoots untouched, they are only confined by a *three-cornered hoop*. The next tie must have five sticks; and one, three, and five, are all the kinds of ties in use; two or four sticks are worse than none; the five as one, the strongest, in the centre, and very firm; the four are in the circumference, as the three were; now hoop the four in one or two tiers of string, and tie each of them to the middle stick, as if they were four shoots, and you have the best tie in the world.]

"May I leave my *Dielytra spectabilis* out all the winter?"

[You may leave it out, or you may take it in-doors, just as you choose; it is all the same to the plant, which is as hardy as a Daisy, as you may find stated ten times in every volume of THE COTTAGE GARDENER since 1850.]

"I have a narrow border under trees, but with the full sun on it the hottest part of the day. Laurels do pretty well; but I want something to plant in front, between the Laurels and the walk. What do you recommend? It is seen from the drawing-room, and at present looks very forlorn all the year."

[You might make that narrow border under trees quite gay all the year round, with so many Golden Variegated Hollies, and one-third the number of Silver Variegated Hollies, and as many plants of the *Aucuba japonica* as of the Silver Holly; that is, the Silvery Holly and the *Aucuba japonica*, between them to be one-half, and the other half to be of Yellow Hollies. Let the Hollies be only from a foot to eighteen inches high, and the *Aucuba* not much higher. After *trenching* that strip of the border, and the grass edging with it, if any, proceed to

plant, or mix and plant, your variegated plants in such a way as *you* think they look best from the drawing-room window. The way to proceed is this: set the plants down on the bare earth, five or six feet apart, all along; then go *inside* the drawing-room, and make your right hand man move any of them, or all of them, backwards or forwards, to the right or to the left, till you are satisfied that they are all in the best telling places; then order them to be planted. After that, fill the whole ground between them with *Berberis aquifolium*, and see that this plant does not hurt the variegatums.]

"I am going to have some grass seeds to *renovate a lawn* in the spring. It is poor, with tufts here and there. Ought I to do any thing in the way of dressing this autumn?—BERKSHIRE KATIE."

[No. No dressing this autumn; but provide as much dressing as will cover the whole lawn one inch deep next February, and keep this dressing as dry as a bone till the time of application, then soak it with the richest liquids about the house. Put it on, then harrow it in with a bush-harrow, and in three weeks sow the seeds over, then harrow lightly again, and the first time it is dry roll quite firm. Meantime, set the boy to dig out the strong tussocks and the broad-leaved plantain, and all other weeds, if any, and you will have the finest lawn in Europe in a couple of years]

A BELT OF TREES FOR SHELTER.—PREVENTING SHELL-LESS EGGS.

"I am anxious to plant a narrow belt of trees to shelter my garden from the north winds. I should prefer evergreens that would be ornamental. What trees are the best for ornament and quick growth; and what is the best time and mode of planting, especially Firs? The soil is good, and rather strong. About five or six feet below the surface there is limestone."

"What would you give to fowls to prevent them laying eggs without shell?—ANGLO-SAXON."

[So much depends upon situation, elevation, and exposure, that without seeing your intended site of a sheltering belt of evergreen trees, it is almost impossible to advise you correctly.]

If the situation is elevated and exposed, plant the common hardy *Scotch Pine* on the side most exposed, and the *Spruce Fir* on the inside. They are both quick in growth, very hardy, and, as everybody knows, evergreen. If the situation is rather low, and sheltered by hedge timber, plant the belt with the *Balm of Gilead* and *Weymouth Pine*.

If you wish to get your belt up quickly, let the ground be well dug and broken thoroughly with the spade. This should be done immediately, and the trees planted as soon as possible, before the winter sets in. Observe not to plant trees more than two to three feet high; larger trees are almost sure to fail. Procure them from a nursery where they transplant frequently such trees; remove with plenty of fibres, and they are almost certain every one to grow. Let each tree have a stake, and the tree securely tied to it with tar-band to keep it steady, and the roots quiet till fresh fibres are produced.

With these precautions and care, your belt will, in a very few years, be efficacious in sheltering your garden from the north wind.

Read Mr. Appleby's papers on "Woodcraft;" many of his remarks, the fruits of a long experience, will be useful to you.

Give your hens pills, each containing a grain of calomel, and 1-12th of a grain of Tartar emetic. Give them very little corn, and no animal food, but plenty of boiled potatoes, and as much of green vegetables as they will eat.]

SALT WATER AQUARIUM.—PLANTS FOR A ROCKY MARGIN OF WATER.

"Can any of your readers inform me of the best way to make a salt water eistern for *Marine Algae*, so that it may be seen into in front?"

"In your answers to correspondents, in the number of September 11, 'Rock-work' (*B. Fivian*), you name the

plants; but could you not also mention what *wild plants* that flower that would do to place on Rock-work on the edge of a pond? you would then make that answer complete.—G. WARRINER."

[Such a cistern, for such a purpose, is at the Zoological Gardens in the Regent's Park. We can only advise you the most probable way to succeed in cultivating *Marine Algae*. It will be necessary, as they are plants that generally grow under water, to provide a vessel, or tank, to grow them in. And, again, as they are mostly inhabitants of the sea, they must have sea-water to grow in. Now, as many of them are very beautiful when seen in water, it will be desirable to have a medium transparent enough to allow the eye to view their beauties. This medium is easily suggested to the mind, namely, glass. A largo tank then might be formed, in the shape of a parallelogram, with blue slate on three sides, and the fourth should be glass; or, if expense is no object, all the sides might be glass. The sides might be formed at the glass-works, with a groove at each corner of the sides to dove-tail the ends into, made water-tight with a cement that will bear the action of the water. Or, still better, an entire glass tank might be ordered at any of the glass manufacturers, of such a strength as would bear being sent entire in a thick wooden case.

We merely suggest these various modes, any of which would answer your purpose. The glass would require frequently cleaning, to clear it of confervæ, which also would soon render it foul and opaque.

The bottom should be covered with stones picked out of the sea; and the plants should, as far as possible, be brought from the briny element growing on pieces of stone, or sea-rock; for if they are forcibly pulled off the rocks, it is very doubtful whether they would grow again when put into the marine tank. If you enter upon the culture of these beautiful sea plants, and are successful, we should be obliged by a history of the means adopted, and the success achieved.

Plants for the rocky margin of a pond. If the rock-work is considerably elevated out of the water, that element will be of no use to such plants as delight in wet soil. Lower down the rocks, approaching within a foot of the water, so that the roots will find their way into it, the following wild plants will thrive in the situation you describe:—

Acorus calamus, Sweet Flag	..	..	2 feet.
Butomus umbellatus	..	..	2 "
Comarum palustre	..	..	2 "
" " variegata	..	..	2 "
* Ficaria ranunculioides	..	..	1 1/4 "
" " pleno	..	..	1 1/4 "
" verna	..	..	1 1/4 "
* These plants love the shade as well as moisture.			
Galium palustre	..	..	trailer.
Menyanthes trifoliata	..	..	1 foot.
Myosotis palustris	..	..	1 "
Pedicularis palustris	..	..	2 feet.
" sylvatica	..	..	1 foot.
Ranunculus flammula	..	..	1 "
" hederacea	..	..	trailer.
" pantothrix	..	..	trailer.
Scrophularia aquatica	..	..	4 feet.
Swertia perennis	..	..	1 foot.
Tenarium scordium	..	..	1/4 "

EVERGREEN EDGINGS.

THE *Tamarisk* is a plant which seems to me well deserving of a trial for this purpose. It is an indigenous plant, with fine evergreen leaves, almost like a compact form of Asparagus in its appearance. It grows wild in a few places on the southern and eastern shores of this country, and bears with perfect impunity the keenest blasts and the sea air, so fatal to the growth of most other evergreens. Although not often cultivated, it grows and flowers luxuriantly in inland situations. The cottagers by the sea-side train it over porches, or clip it into compact, neat hedges of all heights and sizes, presenting at all times a dense mass of lively green, and they say that slips of it strike with ease and certainty at any season.—LATIMER.

THE POULTRY CHRONICLE.

ALTHOUGH accurate judgment, and a knowledge of what is required in a pen of fowls, is unquestionably necessary to success in showing for prizes, yet, in many instances, the diffusion of such knowledge tends more to promote discontent, and to increase difficulties, than otherwise.

Formerly, in almost every class, the difference between the successful and the unsuccessful was so great, that the owners of the latter at once acquiesced in decisions, and admitted their justice; but now the difference is so trifling, that although perceptible when pointed out, yet the leaning there always is to *our own*, leads us to diminish the small disqualification, till in our eyes it disappears; and if we tell the truth, we must confess that too often we are more disposed to impugn judgments than to admit our lack of merit.

It has been said, that one of the capital failings of the once powerful Bourbon family was, that "they learned nothing and forgot nothing"—adversity was no teacher to them. The same may be said of exhibitors who cannot learn more from defeat than success. We will be bold to say, there is not one of our celebrities who has not, at times, wanted the spur to keep him up to the mark, and felt it in the shape of an unexpected defeat.

The easy victories of former days were not appreciated as the more difficult ones are now. It is not the immense number of pens congregated together at Birmingham that makes a first prize so valuable; it is the known fact that the best birds in England are there, and the successful have nothing to fear at any other show.

There will always be two classes in every competition. One fond of the pursuit, or loving the excitement, and careless of money; the other, seeking profit, while he indulges his hobby, or, at least, trying to make it self-supporting. To both, the harder the victory, the more gratifying. To the first, because he is successful over good exhibitors; the second, because the very difficulty of the achievement makes it valuable.

But we would not be thought to discourage a third class; those who have little hope of becoming owners of pieces of plate or silver medals. There are second and third prizes, and high commendations, which are far from being valueless. Birds distinguished in this way are almost always sold, and at more than remunerating prices, and many a pen that has at first disappointed its owner by its want of success, has, ere the close of the first day's show, made amends by realizing a goodly sum. Buyers would rather make their purchases at an exhibition than elsewhere; and we believe many, who show everywhere, who have told us that they never send to one without making a profit. It is unquestionable, that moderate birds sell better there than anywhere, and every now and then some one who has sent only for sale is surprised to find himself the owner of a first-prize pen.

This has been the unvarying history of cattle shows for many years, and it is our own fault if we do not benefit by the experience we may glean from them. We have a beaten track to guide us. It is no use to have a better breed than any one else, unless it is generally known, and it is only at an exhibition it can prove its superiority, and at the same time publish its merits.

THE PROTEST AT ANERLEY POULTRY SHOW.

For the information of your correspondent "Fairplay;" also for exhibitors of poultry in general (although not as an answer to "Fairplay's" inquiry), I beg to explain the facts of the case, and thus make known the manner in which I have been treated in reference to the protest made by me on the 28th of August, against the pen of Dorking fowls in class 4, No. 77.

The 4th Rule of the Show declares, that the age of the *chicken* must be accurately stated; and in Rule 5, that fowls entered in a wrong class will be excluded from taking a prize. Thus the subject of my complaint is against a pen of fowls entered as only thirty weeks old, and awarded the first prize. The male bird and one of the hens (not chicken), I can prove were falsely entered. Both of them were once my property; and I can prove that the age of the cock was eleven months, having been hatched on the 2nd of September, 1854, and that the hen was still older.

On my entering the Show, I immediately recognised the two fowls, and speedily entered a protest in writing with the secretary to the effect:—"that I could prove the male bird in pen 77, class 4, to have been hatched in the year 1854."

In furtherance of this, I attended the Show on the 29th of August, with a witness to prove the truth of my statements; and after writing and making inquiries as to when the committee would meet to consider the matter, and give me an opportunity of proving the veracity of my protest, I was informed by one of the secretaries (Mr. Wells), and before a witness, "that there could be nothing done in the matter until the judges had again consulted." I attended again on the third day, fully prepared to meet the case, but no committee was convened, nor could I learn that it had even been mentioned to any person, or persons, forming such committee, and the replies given to my inquiry were both vague and unsatisfactory.

On my return home, I addressed a note to the secretaries, and requested them to lay the case before the committee immediately, and communicate the result to me. In answer to which, I received the following reply:—viz., "That my protest had been laid before the committee on the 28th of August, and that they were instructed to state, that the decision of the judges, in all cases, was final and conclusive, and that the matter of necessity fell to the ground (!) &c." Thus positively denying their former statements to me at the Show on the 28th, 29th, and 30th of August, before a witness. I was then told that nothing had been done in the matter; but on the 12th day of September, I am informed that my case fell to the ground on the 28th of the preceding month; and, at the same time, they endeavour to charge me with differing from my first statement, &c.

Since receiving the above reply, I again wrote to the secretaries on the 15th of September, requesting them to be so kind as to send me the address of the gentlemen that formed the committee before whom my case had been heard, &c.; but, as yet, I have received no answer.

Such are the facts of the matter; such is the treatment with which my protest has been met; and such the injustice I have suffered.

Many are the communications that I have received from various gentlemen (exhibitors of poultry) for information, similar to the inquiry of your correspondent "Fairplay," on the subject of the Protest. My answer is,—Please read the foregoing, and draw your own conclusions.

I can only add, that I am still prepared to prove the age of the fowls, confirmed by undeniable witnesses, such as can identify them from amongst 500 other fowls, and give such proof of their age as will dispel all doubts in the

minds of every just person; and until I have had the opportunity of sustaining the charge before a fair and impartial tribunal, I can but reiterate, that favour and partiality have overruled justice and truth.—JAMES LEWRY, *Havercross, September 29th.*

NORTHAMPTONSHIRE AGRICULTURAL SOCIETY'S POULTRY SHOW.

WE like to attend a Poultry Show held in connection with an Agricultural Meeting, as they harmonize one with another, and mutually assist each other. It is also a step in the right direction. Cows, horses, sheep, and pigs, have long been honoured with prizes; next came swedes, turnips, cabbages, and mangold; then Poultry. Due attention to Poultry is yet in its infancy, and we firmly believe the time will come, when it will rank among the most *certain* sources of profit on a farm. But prejudice is still strong, and many a man who makes it the business of the year to take the first prize, or the silver medal, for a pen of sheep, thinks it *infra dig.* to show Poultry.

We like a general holiday; and such is an Agricultural Meeting. We enjoy the honest pride of the men who have brought the best bull, cow, sheep, or horse. How they lionize among the less fortunate! We were lately watching the progress of one or two men who had charge of the prize horses, and who were returning after the Show. They were way-laid at every public-house, treated by the landlord, and eloquent to the admiring crowd on the merits of the favoured animal. At each halt they became more excited; until, at last, it was a stretch of the imagination to suppose, or believe, they were in a state to *take care* of their charges.

The same happens with Poultry. If it is known that a prize pen is lying for half-an-hour at a railway station, or is packed at the back of a cart or van, every possible contrivance is set to work to get a sight of them. If some of the old Dutch and Flemish painters could return to life, what glorious subjects they would find at an Agricultural Meeting!

We have now to say a few words on the Show held at Kettering, in connection with the Northamptonshire Agricultural Society. We observed one thing well worthy of imitation wherever it is intended to hold a Show without incurring the expense of coops. Every exhibitor is bound to send his birds in a coop, made after the pattern of one supplied by the Society. It is very roomy, made of wicker, and open at the top and at each end. A long platform is erected, the whole length of the ground, four feet high; on this the cages are placed, and they have this advantage, that when, as was the case in the afternoon, the Show is much crowded, the birds are equally well seen from either side. The coops are supplied at 2s. 9d. each, and are useful at all times in a yard. *Dorkings* were the principal feature, and a better Show of them is seldom seen. There were four classes of them; and an old Dorking name, the Rev. F. Thursby, took the first prize in each. That it was not an easy victory, may be known from the fact, that among other prize-takers were Lady Isham, Lord Spencer, Dr. Prichard, Mr. Langlands, &c.

We fancy there were birds here that will be heard of hereafter, and they will be strong who beat them.

There were good *Cochin* and *Game* Fowls; also very good *Ducks*, but being a purely Agricultural Show there was not the same variety of classes met with as elsewhere.

There were some excellent *Brahma Pootras*.

Mr. Bailey, of London, acted as judge.

BIRMINGHAM COLUMBARIAN SOCIETY'S FIRST EXHIBITION.

THE entries for this Exhibition number nearly 200 pens, and many of them from several of the first fanciers of London, Birmingham, and other places. Among the entries are choice specimens of Spots, Frilled Backs, Silk Lace, Crested, Bald Heads, Swallows, Yellow Brunswickers, &c.; besides a large number of well-known prize birds in all the general classes.

LONDON MARKETS.—OCTOBER 8TH.

COVENT GARDEN.

The market is abundantly supplied with all kinds of Fruit and Vegetables. *Williams' Bonchrétien Pears* are now going out, as are also the *Hessle*; and there is now a succession of *Gansel's Bergamot*, in limited quantity, for the higher classes, and a large supply of *Autumn Bergamot* for the million. We observed, also, a few of *Beurré d'Amanli's*, a variety which is well worth the attention of orchardists, as being a valuable sort to succeed the *Williams'*. *Plums* are becoming less plentiful, but *Damsous* are abundant. *Grapes* are very plentiful. *Flowers* of all kinds in abundance.

FRUIT.

Apples, kitchen, per bushel.....	1s. 6d. to 2s. 6d.
" dessert	4s. ,, 6s.
Pears	4s. ,, 8s.
Apricots, per doz....	1s. 6d. ,, 3s.
Peaches, per doz.....	1s. ,, 3s.
Nectarines, per doz...	1s. ,, 3s.
Cherries, per lb.	—
Plums, per sieve	4s. ,, 8s.
Pine-apples, per lb....	6s. ,, 8s.
Grapes, per lb.	1s. 6d. ,, 6s.
Melons, each	2s. ,, 6s.
Figs.....	—
Gooseberries, per qt. —	—
Currants	—
Raspberries	—
Strawberries, per pottle —	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 8s.
Almonds, per lb.	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 22s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts	—

VEGETABLES.

Cabbages, per doz. ..	9d. to 1s.
" Red, per doz. ..	2s. ,, 4s.
Cauliflowers, per doz.	2s. ,, 4s.
Brocoli	1s. ,, 2s.
Savoy.....	—
Greens, per dozen bunches	2s. ,, 3s.
Spinach, per sieve....	1s. ,, 2s.
Beans	—
French Beans, per half sieve	1s. 6d. ,, 2s. 6d.

GRAIN AND SEED.

FRIDAY, OCT. 5.—The arrivals still continue very moderate. This morning the trade for Wheat rules firm at Monday's prices, and for Foreign full prices are demanded; the offers from abroad are still limited. Barley meets fewer buyers, but rates are unaltered. Oats 6l. dearer, with a moderate consumptive trade. Old Beans the turn higher. Peas and all other grain firm at Monday's currency.

WHEAT.

Kent and Essex, red, per qr.....	74s. to 84s.
Ditto, white	84s. ,, 90s.
Norfolk and Suffolk..	76s. ,, 78s.
Dantzic	86s. ,, 92s.
Rostock	81s. ,, 90s.
Odessa	73s. ,, 76s.
American	83s. ,, 85s.

BARLEY.

Malting	41s. to 45s.
Grinding and Distilling	34s. ,, 36s.
Chevalier	35s. ,, 38s.

OATS.

Scotch, feed	31s. to 32s.
English	26s. ,, 27s.
Irish	25s. ,, 28s.
Dutch Broo	29s. ,, 30s.
Danish	25s. ,, 29s.
Russian	26s. ,, 29s.

BEANS.

Harrow	40s. to 42s.
Pigeon	42s. ,, 43s.
Tick	40s. ,, 41s.

Scarlet Runners ..	1s. 6d. ,, 3s.
Peas, per bushel	2s. ,, 3s.
Carrots, per bunch ..	4d. ,, 6d.
Parsnips.....	—
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Turnips, per bunch..	2d. ,, 6d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s.
" Cabbage....	6d. ,, 8d.
Endive, per score....	1s. ,, 1s. 6d.
Celery, per bunch....	8d. ,, 1s.
Radishes, Turnip, per dozen bunches	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet.....	2d. ,, 3d.
Artichokes, each	3d. ,, —
Asparagus, per bundle	1s. 6d. ,, 4s.
Sea-kale, per punnet	—
Rhubarb, per bundle	2d. ,, 6d.
Cucumbers, each	3d. ,, 8d.
Vegetable Marrow, per dozen	6l. ,, 1s.
Tomatoes, per punnet	1s. ,, 2s. 6d.
Mushrooms, per pottle	8d. ,, 1s.

HERBS.

Basil, per bunch	6d. to 9d.
Marjoram, per bunch	6l. ,, 9d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch ..	2d. ,, 3d.
Mint, per bunch	4d. ,, 6d.

PEAS.

Boiling, per qr.....	43s. to 46s.
Common.....	36s. ,, 38s.
Grey.....	37s. ,, 40s.
Maple	37s. ,, 39s.

SEEDS.

Turnip, White, per bushel	—
Swede	—
Rape	84s. ,, 86s.
Linseed, sowing, qr..	80s. ,, 84s.
" crushing ..	74s. ,, 76s.
Clover, English, redcwt	60s. ,, 68s.
" Foreign do.	52s. ,, 57s.
" White	68s. ,, 73s.
Trefoil.....	28s. ,, 32s.
Rye, per qr.....	52s. ,, 54s.
Tares, winter.....	88s. ,, 86s.
Canary.....	64s. ,, 66s.
Hemp	54s. ,, 57s.

Linseed Cake, per

ton.....	£11 to £12 10s.
Rape Cake ..	£6 10s. ,, £6 15s.
Indian Corn	47s. ,, 50s.

HOPS.

BOROUGH MARKET, FRIDAY, OCT. 5.—The demand for fine samples has continued good throughout the week, and the trade is steady, and market firm. Mid. and East Kent, 100s. 115s. to 130s.; Weald of Kents, 90s. 95s. to 100s.; Sussex, 84s. 90s. to 94s.; Country Farnhams and Farnhams, 90s. 105s. to 110s. Duty, £300,000.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.	Meadow Hay, new	95s. to 120s.
Clover, new	120s. ,, 135s.	Rowan	80s. ,, 90s.
Ditto, 2nd cut	90s. ,, 140s.	Straw, flail.....	30s. ,, 36s.
Meadow Hay	90s. ,, 130s.	Ditto, machine	28s. ,, 30s.

MEAT.

Beef, inferior, per 8lbs.....	3s. 4d. to 3s. 8d.	Mutton, prime	4s. 6d. to 4s. 10d.
Do. middling.....	3s. 10d. to 4s.	Veal	3s. 10d. to 4s. 10d.
Do. prime	4s. 2d. to 4s. 4d.	Lamb	5s. 4d. to 5s. 10d.
Mutton, inferior	3s. 4d. to 3s. 8d.	Pork, large.....	3s. 8d. to 4s.
Do. middling ..	3s. 10d. to 4s. 4d.	Ditto, small	4s. to 4s. 6d.

POULTRY.

The supply of Poultry is still small, but quite equal to the demand. There has seldom been so little trade as at present. Our quotations will show that prices have slightly improved.

Large Fowls	5s. to 6s. each.	Partridges..	1s. 9d. to 2s. 0d. each.
Smaller do.	4s. to 4s. 6d. ,,	Hares	3s. 0s. to 3s. 6l. ,,
Chickens ..	2s. 3d. to 3s. 0d. ,,	Rabbits ..	1s. 4d. to 1s. 5d. ,,
Geese.....	6s. 0d. to 7s. 6d. ,,	Wild do. .	11d. to 1s. 1d. ,,
Ducks	2s. 9d. to 3s. 3d. ,,	Pigeons .	8d. to 9d. ,,
Pheasants... ..	3s. 6d. to 4s. ,,		

PROVISIONS.

BUTTER.—Cwt.		CHEESE.—Cwt.	
Dorset, fine	104s. to 108s.	Cheshire, fine	74s. to 90s.
Do. middling.....	90s. ,, 96s.	Gloucestershire, dble.	70s. ,, 76s.
Fresh, per doz. lbs.	12s. ,, 13s.	Ditto, single	60s. ,, 74s.
Friesland	93s. ,, 100s.	Somerset.....	70s. ,, 76s.
Kiel	94s. ,, 98s.	Wilts, loaf	68s. ,, 78s.
Carlow	98s. ,, 102s.	Ditto, double.....	72s. ,, 78s.
Waterford	98s. ,, 102s.	Ditto, thin	54s. ,, 64s.
Cork.....	98s. ,, 102s.	Ditto, pines	72s. ,, —
Limerick.....	92s. ,, 96s.	Berkeley, thin	62s. ,, 65s.
Sligo	—		

BACON.—Cwt.

Wiltshire, dried ..	80s. to 84s.	York, new	80s. to 90s.
Waterford	74s. ,, 76s.	Westmoreland	76s. ,, 86s.
		Irish.....	74s. ,, 84s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11d. the 4lb. loaf, but in other places the bakers are selling the best bread at 8d. the 4lb. loaf, while in the cheap neighbourhoods they profess to sell at 7½d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. ,, 1s. 2d.
Ditto Tegs and	—	Leicester fleeces...	1s. ,, 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hog-	—	Combing skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

IRREGULARITIES (*A Long and Late Subscriber*).—All we can say in the matter is, that every Tuesday morning there is a supply of the new number of *THE COTTAGE GARDENER* for all who apply for it. Many thousands are delivered on that day, and throughout the week, and yours is the only instance we know of where such irregularities have occurred. If your present bookseller does not choose to keep up a regular supply, call on Mr. Fraser, bookseller, 14, D'Olier Street, Dublin, and he will, no doubt, give every attention to your orders. Such negligence, we own, is exceedingly annoying both to you and to us.

WELLINGTONIA GIGANTEA (*An Old Subscriber*).—Though the seedling is only three inches high, we should plant it out; giving it a somewhat sheltered place, but quite free from the shade or drip of trees.

SHELTER FOR PLANTS (*Ellen Cox*).—Your box would not answer. Sow *C. neraria* seed in April and May; *Calceolaria* seed in August; and *Primrose* seed in April and in July.

FLUKE POTATOES (*A Young Gardener*).—If on a dry, well-drained soil, plant in November. If the soil is not of this character, do not plant until March. If planted in November, put the sets eight inches below the surface, and do not earth up the plants next year. Your other query next week.

REMOVING THE SPURS OF A COCK (*L. A.*).—This may be done by means of a very fine-toothed saw. Any surgical friend would do this, though we have known the operation performed well with a carpenter's finest saw.

RENOVATING LAWN (*X. Y. Z.*).—See what is said to-day in answer to another correspondent. Neither sow it nor dress it until the spring. For forcing *Asparagus*, the temperature of the water should be about 120°, and that of the soil 80°. Plant out *hardy Ferns* in April.

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MESSRS. E. G. HENDERSON AND SON

Beg to announce that they have now received their noted collection of **HYACINTHS** in excellent condition. Catalogues can be had on application, and printed instructions will be given gratis with each order they are kindly favoured with. In this Catalogue the New Geranium and Cineraria Lists are given with full descriptions.

CUCUMBER—HENDERSON'S "NAPOLEON III."

CINERARIAS—ADMIRAL LYONS (HENDERSON'S).

FUCHSIAS—BANK'S FAVOURITE, 10s. 6d.—PRINCE OF WALES, 10s. 6d.

GYNERIUM ARGENTEUM (THE PAMPAS GRASS).

The largest Stock in the country of this noble, ornamental Grass. Healthy Plants, at 2s. 6d. each, or 25s. per dozen.

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These are most abundant flowerers, and among them are some of the most lively contrasts of colours imaginable. Prices 5s., and 7s. 6d. each, or 42s., and 60s. per dozen.

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F. GODWIN begs to offer the following
PLANTS:—

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„ Belgian, finest varieties,		Hydrangea japonica varic-	
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Erythrina crista-galli	1 6	„ floribunda	3 6
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Fuchsias, all the new sorts,		Pentas rosea	1 0
each	1s. to 1 6	Pleroma elegans	1 6
Gloxinia Duke of Wellington	1 0	Saxe-Gothica conspicua 1s. to	3 6
„ Eugénie	1 0	Siphocampylus Ne Plus Ultra	1 0
„ Figaro	1 0	Sonerilla margaritacea	7 6
„ Léonie Van Houtte	1 0	Stephanotis floribunda	1 0
„ Wilsoni	1 0	Tremandra verticillata	1 0
with others, at 9s. per dozen.		Valloia purpurea.....	1 0
Henfrya scandens	1 0	Veronica variegata	0 9
Hexacentris lutea	1 0	Vinca alba	1 0
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Also, strong plants of the following **CHRYSANTHEMUMS**, which are the best of last year:—Annie Henderson, Arigenia, Augustine Mie, Aurore Boreale, Bob, Brilliant, Comte Achille Vigier, Docteur Bois Duval, Eclipse, Hermine, Le Prophète, Louis Delarborde, Madame Passy, Marguerite de Valois, Marguerite de Wildemer, Pluie d'Or, Prince Jerome, Requioui, Turris Eburnea, Zebra, at 8s. per dozen, or the collection for 10s.

F. G.'s priced Catalogue of Dutch Bulbous roots is now ready, and may be had free on application. Remittances expected from unknown correspondents.

BROADFIELD NURSERIES, SHEFFIELD, SEPT. 29.

Cucumber Seeds for Winter Sowing.—

The three best and most certain varieties ever sent out, and such as are sure to give satisfaction for winter growing. General Canrobert, fine black spine, length 15 inches, 2s. 6d. per packet. Lord Kenyon's Favourite, length 12 inches, very handsome, free setter, and most prolific bearer, 2s. 6d. per packet. Gordon's White Spine, length 20 inches; this has proved to be the best long winter variety now in cultivation, 1s. 6d. per packet.

DIGITALIS, OR FOX-CLOVE SEED.

This beautiful hardy biennial has been so much improved within the last two or three years by continual hybridising, that the brilliancy of the colours, the numerous varieties into which it has sported, and the dwarfness of the plants, will cause it when once known to be planted in the largest and smallest of flower gardens, round the borders of shrubberies, and for making beds in large pleasure grounds where brilliancy and effect is required. They will grow well on rock-work or sloping banks, where numerous other varieties of plants will not thrive at all. The seed should be sown now in pans or boxes, and planted out early next spring; by so doing they will bloom well next season.

Sold in packets at 1s. 6d., or double packets at 2s. 6d. Every order must be accompanied by Penny Postage Stamps, or Post-office Order, payable to

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Fine Fringed Chinese Primrose.—J.

and J. FRASER beg to offer some excellent SEED of the above, saved from plants which obtained the award of the Horticultural Society last winter, in packets at 2s. 6d. each.

A remittance in stamps is requested from unknown correspondents.
Lea Bridge Road, Sept. 1.

Dutch Hyacinths and other Bulbs.—

J. and J. FRASER beg to announce that they have received their annual importation of **HYACINTHS** and other **FLOWER ROOTS**, of which a descriptive Catalogue may be had by enclosing one postage stamp.

This Catalogue contains some instructions for the successful cultivation of the various roots.

Lea Bridge Road, Sept. 1.

Dutch Flower Roots,—PETER LAWSON

and SON, Seedsmen and Nurserymen to Her Majesty the Queen, and to the Highland and Agricultural Society of Scotland, respectfully intimate that they are now ready to execute orders for **HYACINTH** Roots, &c., &c., of the finest kinds, and in excellent condition. Catalogues may be had, free, on application.

27, GREAT GEORGE STREET, WESTMINSTER.—Sept. 29.

HORTICULTURE

IN ALL



ITS
BRANCHES.

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HOTHOUSE BUILDERS.

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The **HOT-WATER APPARATUS**, which passes through all the Houses and Pits, affording both top and bottom-heat, is in constant operation and particularly worthy of attention. Many of the Houses and Pits are of wide and lofty dimensions, and together equal in length 1,000 feet. They are all effectually heated by one boiler, which, during the severe winter months does not cost in labour and fuel more than 3s 8d per day, and the apparatus is so arranged that each House or Pit may be heated separately and to the required temperature. The splendid collections of Stove and Greenhouse Plants are also in the highest state of cultivation, and for sale at very low prices. Also a fine collection of strong Grape Vines in pots, from eyes, all the best sorts.

Plans, Models, and Estimates of Horticultural Buildings; also Catalogues of Plants, Vines, Seeds, &c., forwarded on application to **JOHN WEEKS & Co., King's Road Chelsea, London.**

WEEKLY CALENDAR.

D M	D W	OCTOBER 16—22, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
16	Tu	Mottled Umber Moth.	30.028—29.671	56—28	N.E.	—	27 a 6	5 a 5	7 29	5	14 17	289
17	W	Mallow Moth.	29.396—29.258	49—41	E.	04	29	3	8 30	6	14 29	290
18	Th	St. LUKE.	29.419—29.227	50—31	N.	03	30	0	9 46	7	14 41	291
19	F	Red-green Carpet Moth.	29.786—29.469	51—40	W.	61	32	1v	11 13	8	14 52	292
20	S	Sun's declination, 10° 15' s.	29.433—29.356	57—39	W.	04	34	56	morn.	9	15 3	293
21	SUN	20 SUNDAY AFTER TRINITY.	29.638—29.439	57—45	N.W.	—	35	54	0 44	10	15 13	294
22	M	Marbled Chestnut Moth.	29.550—29.303	60—31	W.	—	37	52	2 15	11	15 22	295

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 58.5°, and 42.7°, respectively. The greatest heat, 73°, occurred on the 21st, in 1830; and the lowest cold, 20°, on the 21st, in 1842. During the period 107 days were fine, and on 89 rain fell.

WHAT is to become of the HORTICULTURAL SOCIETY OF LONDON? The glory has departed from Chiswick; the exchequer is empty; the expenditure exceeds doubly the income; and the debt of £10,000 is growing gradually greater. It is long since we had forebodings of the coming crisis, and did not fail to sound the alarm; but the announcement was pooh-poohed, and flattering statements by those who thought it their interest to make them, lulled for a time the growing anxiety. But the crisis *has* come, despite these glowing representations, and the Society is at a stand still; burdened with debt, and crippled on every side, it is now but a living non-entity,—a kind of *anatomie vivante*. We have always taken an interest in its welfare, and whenever we have felt it our duty to speak out, we have done so; not in a carping spirit, but with the earnest desire that the disastrous course which was being pursued by those to whom the management of the Society was entrusted might be arrested, and that a brighter day might dawn upon it. The fate of a noble institution was trembling in the balance, and a timely rescue might have saved it. We have, on many occasions, raised the note of warning, and urged the members to rouse themselves to a sense of the impending danger; but a spasmodic response of “all is well,” from an authorised organ, soothed, for a time, the awakening fears of those who could have rendered timely aid.

The facts are these. The Secretary of the Horticultural Society has at last openly acknowledged that it cannot go on. A meeting has been called by those in authority, of a few of the practical members to talk over matters with the Secretary, who is to submit the opinion of the meeting to the Council. The questions which were discussed were the present condition and future prospects of the society. The present condition is a debt of somewhere between £10,000 and £12,000; the income of last year was about £1,700, and the expenditure about £4000, by which some £2000 was added to the already enormous debt. The assets are valued at some fabulous sum, of which we do not exactly know the amount, but practical men put them down at less than £5000. The future prospects are far from bright; the garden clerk and the librarian have been discharged; the necessary working staff in the garden has been reduced; the Quarterly Journal has lapsed, and there is no announcement of shows for the coming year. We do not know what passed at the meeting, further than that

it was the unanimous opinion that no more debt should be incurred, let the consequence be what it may; and that immediate steps should be taken to dispose of all available stock, both at the garden and at Regent Street, for the purpose of liquidating, as far as it will go, the debt which has been already incurred. This is the recommendation the Secretary will have to take up to the Council; but what the future course will be remains to be seen.

NEXT in alphabetical order, among the plants of our translation of the Bible occurs what the translators termed CAMPHIRE. They so rendered it, probably, because the Hebrew word, *CAPHER* in the original, closely resembles the eastern names for Camphor,—for it is *Kafoor* in Arabic and Persian, *Kaafoor* in Malay, *Kufoor* in Hindostanee, and *Kápur* in some other languages.

The word occurs but twice in the Bible, and each time by the same mystical poet. He there exclaims, “My beloved is unto me as a cluster of *Capher*, in the vineyards of En-gedi.” (*Canticles* i. 14.) The translators had some doubt as to the correctness of their interpretation, and they, therefore, put *Cypress* in the margin, as an evidence that this tree might be intended. It was, however, a plant more fragrant than the Cypress; for, in another passage (iv. 13), it is classed among the most odoriferous,—“*capher* and spikenard, spikenard and saffron, *kanah bosem* and cinnamon, with all trees of frankincense; myrrh and aloes, with all the chief spices.” It was not, however, the true Camphor-tree, *Laurus camphora*, for this tree is a native of the tropics, and could not be growing in the vineyards of En-gedi.

En-gedi, otherwise called Hazazon-Tamar (2 Chron. xx. 2), that is, the City of Palms, was but a short distance, about forty miles, from Jerusalem; and we must identify, therefore, the *Capher* of the Bible with some odoriferous plant, that could be there cultivated.

Such a plant is the *Lawsonia spinosa*, which our readers may form some idea of, when they know that it is the *Ligustrum orientale*, or Eastern Evergreen Privet, of Parkinson, and others of our ancient herbalists.

Dr. Royle says that *Lawsonia* may be found in most oriental regions in gardens, or in field culture. Botanists have thought that there was only one species, and that when old it was thorny, and had been called *Lawsonia spinosa*, but that when young it was thornless, and had been then called *L. inermis*, or un-

armed. But, Dr. Royle says he cultivated both for several years in India, and found that they retained their characteristic differences when raised from seed, and grown in the same place, and under similar circumstances. The natives of North India distinguish the unarmed species as *phoolke* (flowering) *Mhendee*, but the thorny species they call simply *Mhendee*. It is this species, *Lawsonia spinosa*, which we consider is the *Capher* of the Bible. It contains a very large amount of colouring matter, and for this, as well as for its fragrance, is largely cultivated near Sidoura, not far from the north-western bank of the Jumna. Its flowers are white, powerfully fragrant, and in corymbs, or clusters; and so coinciding with the biblical simile of the beloved one being like "a cluster of *Capher*."

The Arabic name of *hinna* or *henna*, is especially applied to this species, and it is described in many of their medical works, and in that of Serapion, under the title *al kanna*, where it is interesting to observe that he quotes the description given by Dioscorides of the *kupros* as applicable to this plant, and we are well aware that the most authoritative of the ancient Botanists considered the *kupros* to be identical with the *capher* of the Scriptures.

Besides the similarity of the name, observes Dr. Royle, no plant is more likely to have been alluded to in the above passage, as no other is more highly esteemed, or more frequently employed, than the *Hinna*, and it would appear to have been applied to the same purposes from very remote antiquity. Dr. Shaw, in his *Travels*, p. 113, bears a similar testimony. He says, "this beautiful, odoriferous plant grows ten or twelve feet high, putting out its little flowers in clusters, which yield a most grateful smell like *Camphor*. The leaves of this plant, after they are dried and powdered, are disposed of to an advantage in all the markets of Tunis, for with this all the African ladies who can purchase it, tinge their lips, hair, hands, and feet; rendering them thereby of a tawny saffron colour, which they reckon a great beauty." Russell, in his *Natural History of Aleppo*, p. 103, and Niebuhr, in his *Description of Arabia*, p. 57, mention that this practice of personal tinting is prevalent in those countries, and we know, also, that it is a practice in some parts of India. That it was an ancient practice, we have the assurance of Hasselquist, who, in his *Travels*, p. 246, states that he saw in Egypt, that the nails of some of the mummies were tinged with the *Al-hennah*.

We have on more than one occasion in these notes referred to the commerce of Palestine with India. That commerce, embracing, as it did, a large importation of the fragrant products of Hindostan, probably included *Camphor*, and this resembling in its smell that of the plant of En-gedi, may have induced the application to this plant of the Hindostanec name for *Camphor*. This was the more appropriate if *Lawsonia spinosa* be the *Capher* of the Bible, because crystals of *Camphor*, of which its flowers smell, may be obtained from it. The *Lawsonia* is not singular in thus yielding

Camphor, because, besides being obtained from many foreign plants, it is also a product of our native Thyme, Marjoram, Juniper, Rosemary, Sage, and Peppermint.

THE October Meeting of the Entomological Society took place on the 1st instant, the President, J. Curtis, Esq., F.L.S., being in the chair. The Secretary announced the receipt of an extensive series of donations to the library from the Royal Academy of Brussels, the Imperial Society of Moscow, the Society of Arts, the Liverpool Literary Society, Messrs. Zuchold, Hewitson, Newman, &c.

Mr. F. Smith exhibited a collection of rare Coleoptera, captured by himself at Deal, during the past month, including a number of very rare Curculionidæ, also a specimen of the curious little fly, *Elachiptera brevipennis*, which he had observed in the act of depositing its eggs in the body of one of the Cimicidæ, *Nabis subaptera*.

Mr. Dawson exhibited a series of the hitherto unique *Harpalus cordatus*, from the same locality; and Dr. Power, a specimen of *Dinodes Maillei*, a Carabideous beetle, inhabiting Turkey and Greece, but which had been taken in moss at Gurnard Bay, near the west end of the Isle of Wight, it having been supposed to have escaped from some of the numerous vessels from the Mediterranean which approach that part of the island. Mr. Dawson stated, in support of this opinion, that he had seen beetles of great rarity, such as *Panagæus* and *Drilu*, floating in masses to shore near the Needles.

Mr. Foxcroft exhibited a box of insects recently captured in Perthshire; Mr. Bond, the rare *Heliothobus hispidus*, from the Isle of Portland; and Mr. Newman, a specimen of the *Xylocopa iricolor*, a large, and evidently imported kind of bee, at Dulwich.

Mr. Stainton exhibited a new British species of *Lithocolletes* (one of the Muro-Lepidoptera), reared from the leaves of *Vicia sepium*, which still contained specimens, some in the act of producing the perfect insect, and others which will not attain to perfection till the ensuing spring. He had received a notice of the species from a correspondent in Germany, which led him to examine the leaves of the *Vicia*, just as he had himself communicated a notice of a species which had only been found in Britain, to an entomologist at Vienna, who had immediately examined the leaves of the plant which it inhabited, and who at once detected it there.

Mr. Curtis exhibited a gigantic specimen of a scorpion from Sierra Leone.

Mr. Westwood stated that he had received a notice from Mr. D. W. Mitchell, the indefatigable Secretary of the Zoological Society, of the destruction of a large extent of turnips, from the attacks of *Aphides*, which, in their turn, had been consumed by the larvæ of the Aphidivorous Syphidæ. It also stated that he had observed that the past summer had been extremely favourable to the propagation of obnoxious species of Saw Flies. He had observed the *Hylstoma Rosæ*, a Rose

Saw Fly, the black slimy larva of the *Tenthredo Æthiops*, upon pear and cherry trees, and the Gooseberry Saw Fly excessively abundant; and Mr. Lubbock stated that the *Nigger Caterpillar* of the Turnip Saw Fly had recently appeared in numbers in Kent.

Mr. Douglas communicated a note on several species of Click Beetles (*Elateridæ*), which had been observed preying upon other insects, their ordinary food being considered to be of a vegetable nature. Mr. Curtis stated, that he had been informed that crops of Red Cabbages, in the neighbourhood of Cranford, had materially suffered from the attacks of Aphides.

A note was read, from Mr. Atkinson, on the specific distinction of *Papilio pammon*, and *polytes*, regarded by Dr. Boisduval as the sexes of one species of butterfly; also on the true locality of *Papilio Nomius*; and on the pupa state of *P. Polydorus*, contrary to the mis-statements of Mr. Swainson.

Mr. Newman gave an additional locality for the rare clear-winged *Trochilium krysidiforme*, and read a note on the manufacture of hats, impervious to water from the silken texture spun by *Saturnia Spini*, on the process of Herr Pretsch, described at a previous meeting, and for which the inventor has taken out a patent in Austria, although it was admitted that there were at present great difficulties in the production of the raw material, which rendered the articles manufactured from it very dear.

Mr. Douglas stated the capture of the rare *Licinus depressus* and *Tarus axillaris* near Croydon.

A letter from Mr. J. C. Bowring to Mr. A. White, was read, giving an account of his entomological captures during the recent visit of his father, Sir J. Bowring, and himself, to the Court of Siam. He had succeeded in capturing considerable numbers of Bembidiidæ, Staphylinidæ, and especially of Pselaphidæ, the latter of which were found in great numbers in the oil of the lamps. He had continued his researches of the Coleoptera of Hong Kong, of which he had now secured as many as 1,300 species.

Mr. Westwood read a paper containing descriptions of a considerable number of new species of Pselaphidæ, from Australia, contained in the collection of the late A. Melly, Esq., of Liverpool.

FRUIT-TREE PLANTING.

As seasons return, it will be well to examine our previous practice, in order to avoid any errors we may have fallen into, and to confirm sound practice.

First, let us chat over the *station modes of planting*. I believe that I was the first to suggest this practice, both in "Maund's Fruitist," and in the "Journal of the Horticultural Society," many years since. Since that period the practice has been generally recognised. By it we are enabled much to economise our choice composts, or loams, as also to root-prune with precision, and to prevent the descent of tap-roots. Let me, then, again most strenuously recommend the general adoption of platforms, wherever a dwarfing system has to be carried out, and where early bearing is desirable. One thing, however, should be particularly noticed as con-

cerning stations, and that is, the relation that the base of the station should bear to the ordinary ground-level. I say, the base of the platform, for a certain depth, being considered requisite, this is the true point for consideration.

I consider, that from two feet to thirty inches is about the best depth that can be adopted for fruit-trees in general; and as to how much should be above the ground-level, that is a question which should be settled by the character of the soil and the locality. It may be taken as a rule, I think, that the greater the elevation the more the volume of the soil should be reduced to the ordinary ground-level, and *vice versa*. Philosophy and common-sense alike point to the propriety of such proceedings.

All persons laying out new gardens, or betaking themselves to the conducting of old ones, with the soil of which they are imperfectly acquainted, should, first of all, well ascertain the character of both soil and sub-soil. As to wetness, or, as practical men term it, "sourness," all the world knows that draining is the only radical cure. The opening of a few holes, here and there, will soon show if stagnation exists. But then, there is the surface-soil to be considered: this may be the best loam imaginable for fruit culture, and yet too tenacious. It has been affirmed, by men of sound practice, that there needs little nicety in testing land as to its mere mechanical character; and that any land, or soil, on which the water stands for three days after a heavy rain has ceased, affords a most decided case for drainage. I do, indeed, think this matter indisputable; and I also think, that, as an off-hand rule, nothing can be better. The character of the sub-soil, however, exercises a most important influence on the welfare of tender fruit-trees. It matters not talking about platforms if the bottom soil is ever damp—perhaps wet: and this brings us back to thorough drainage. But we must proceed to examine still farther the platform affair.

I advise strongly, then, that wherever the least amount of grumbling exists about low situations, damp air, damp soil, and that sort of ill usage, which a garden here and there lays claim to—a sort of unenviable pre-eminence—drain, elevate; what ought not to be done below the ground-level, do fearlessly above. An honest Hibernian once remarked, that he had, in the course of a long life, observed that, however people might elbow each other, there was ever lots of room overhead. And so with fruit-trees and their roots; if you have not depth enough below, or that depth is of an improper character, why then go upwards—above the ordinary ground-level.

Some good gardeners have affirmed, that the best way to plant fruit-trees, in general, is to set them on the surface of the soil, and to pile the proper compost over them; and, in good truth, if we must thus lump and generalise things, better advice can scarcely be given.

One thing here I would name, or rather suggest; that, what gardeners term a sound or adhesive loam, should enter into what little compost is considered requisite; I care not if it be only two barrowfuls. I do not, by any means, say that good fruits cannot be produced without this loam of the practical gardener; but this I will fearlessly affirm, that if we were to convene a jury of gardeners—genuine ones, I mean—as to the benefits derivable from the use of a little loam, as to fruit-trees, that jury, if composed of a score of those bronzy-looking gentlemen, would not possess three dissentients. I have found three barrows of loam, if pretty adhesive, sufficient for any fruit-tree, on a dwarfing system, providing the ordinary soil is what may be termed good garden soil.

I am of opinion, however, that if a more liberal amount of strong loam could be given, that fruit-trees, in general, would benefit much by being planted on the surface of the soil without any excavations, provided

that occasional surface-dressings were given, and the spade was never used over their roots. If such practices were well carried out, we should hear much less fuss about stocks.

Let me here warn the amateurs against planting trees in the same soil, unimproved, that decayed trees have been removed from; they will seldom succeed. Whether it be on account of the exuviae of the former tree, or that certain qualities have been abstracted, I know not; probably from the two combined; but certain it is, that the practice is bad.

It is very easy to exchange such exhausted soil for that of some bed or border contiguous. Where soil is very hot and loose, I have several times used, and recommended, lumps of marl and clay to be placed on the impervious material which forms the base of the station; this serves to retain moisture during the summer droughts; and I have ever found, that under such circumstances, they cling to the fatty material with the utmost tenacity.

As before observed, surface-dressings are most important. I collect a huge heap of materials for this purpose every season, and half-rotten leaves and shrubbery rakings form more than half this mixture. The best way is to collect, the moment the leaves fall, all rakings, garden clearings, and rubbish of any kind, and at once place it in some sheltered spot to ferment. All coarse grass, lawn mowings, &c., which can be come at may be blended with the mass, and the whole thrown into a high state of fermentation; and as soon as a fair amount has been got together, say by the beginning of December, my practice is, to coat the whole over a foot thick with old hotbed linings, which had originally been about two parts leaves and one part dung, but which, having been used for the above purpose in the last spring, have become nearly rotten. This shuts in the fermentation, and the heap may thus lay, with any additions, until March, when it is turned and mixed thoroughly, and well broken by forks.

Such a surface-dressing I would give every second year to all choice fruits planted above the level, as here described. If such practice is carried out, and no spade or hoc-work is permitted over the stations, it will be found that trees will come into bearing earlier, will continue bearing more steadily, will make little surplus spray, and at all times ripen well both blossom-buds and fruits.

Were such well carried out, Orchard-houses,—albeit, useful adjuncts of high gardening,—would lose half their importance.

As to Orchard-houses, I much fear, that although they may prove of much service to families of affluence, that our market-gardeners will be slow to adopt them.

R. ERRINGTON.

SALES OF VALUABLE STOCK.—*Lord Berners' Sale* of Short-horns, by Mr. John Holland, jun, took place at Keythorpe Hall, on Sept. 28. The company was large, and consisted of some of the nobility and leading agriculturists of the county, and the purchasers included Mons. F. R. de la Tréhonnais (who was purchasing for the Emperor of the French), Right Hon. King Harman (Ireland), Mr. W. Verner, (Verner's-bridge, Moy, Ireland), Lord Denby, Sir John Palmer, Sir George Palmer, Mr. W. P. Herrick, Mr. Charles W. Packe, &c. The first lots of dairy cows were sold at prices varying from 15 guineas to 40 guineas; lots 12 and 13, dairy cows, were knocked down, after smart competition between Mr. W. Verner, M. de la Tréhonnais, and the Right Hon. King Harman, who purchased them, at the sums of 65 guineas and 75 guineas. There were eight bulls sold, realising an average of 50 guineas each; the 16 months' old bull

(Admiral) was knocked down to the Right Hon. King Harman at 150 guineas, after strong competition from Mr. W. Verner and Mons. Tréhonnais; a two months' old calf realised as much as 20 guineas. The whole of the stock was in fine condition, and obtained very satisfactory prices.

The *Sale of the Farming Stock of the late Mr. Philip Pusey* took place at Pusey Lodge, on Oct. 1 and 2, under the able management of Messrs. Fidel and Dyke. The attendance of agriculturists and breeders from various parts was exceedingly large. The sale commenced with the sheep, when a very spirited competition was kept up. The 600 cross bred ewes, which were not in a first-rate condition, averaged 5 guineas each. The ram lambs realised from 2 to 5 guineas each. The Alderney cows, horses, and pigs, after considerable competition, sold at very high prices. Among the purchasers of the sheep were the following gentlemen:—Mr. J. Hilton, Mr. C. Barnes, Mr. Starkey, Captain Wyndham, Mr. C. Hitchings, Lord Berwick (by commission), Mr. J. Druce, Messrs. J. C. Gillett, and Messrs. T. Newton, A. Edmonds, C. Belcher, C. Hobbs, and R. Chillingworth. The second day's sale—in which was included the corn (being the produce of about 150 acres), and a splendid collection of agricultural implements—was still more numerously attended than the first day's. The competition was also stronger, more particularly for the implements.

CRYSTAL PALACE.

(Continued from page 19.)

DAHLIAS.—There is a large piece of ground opposite the bottom of the colonnade, not round, nor pear-shaped, but between the two. Round the margin of this are nine circular beds of Dahlias, with an edging to each. The Dahlias are trained down; they are kept as regular as a bed of Verbenas, and may average thirty inches high; and there are three or four distinct kinds in each bed, each kind in distinct order,—a mass in the centre, then rings all round. To manage Dahlias in this fashion requires a knowledge of the strength of the soil, and of the habits of the different kinds of Dahlias employed; and then a "forecast," or a judging of what kind of season is to come, in order to train and prune, so as to get a good effective bloom, without rambling, crowding, or confusion among the plants. Seeing these hindrances, one may say, that these nine Dahlia beds are exceedingly well managed, as an experimental trial, for it is nothing else, anywhere, in a new garden. If this was an old garden, where the Dahlias were grown from year to year, I should not be at all satisfied with the present success. They have six times too many leaves, and not more than one-half of the number of flowers which they might have had if they had been thinned and pruned harder earlier in the season. The way they were arranged is unexceptionable. The first bed, being planted with a mass of white, or nearly white, in the centre, this is circled by a broad ring of different shades of buff, and a border of blue Larkspurs round the outside. The second bed is a mass of yellow in the centre, round which is a ring of dark purple, and an edging of *Ageratum*, a plant they manage exceedingly well, by early training down quite close to the ground. The third bed has a bluish centre, dark blue round it, and blue Larkspur edge. The fourth, a very dark centre, a ring of yellow, and an edge of *Zelinda* Dahlias, which is a lighter purple than that in the centre,—a very effective bed. No. 5. White centre, scarlet round it, and blue Larkspur. No. 6. Crimson centre, a ring of yellow, another ring of white, and edge of blue Larkspur. No. 7. Crimson centre again, dark purple round, and tipped lilac round again; edge of *Compactum*

Geraniums. No. 8. Purple centre, scarlet round, and blue Larkspur edge. No. 9. Crimson centre, a broad band of light lilac, another white circle, and an edge of *Zelinda*.

After the Dahlias come the Rosery, a circular mount of considerable elevation, with a flat top. A circular walk goes all round the bottom of the Rose mount; and from this walk, six other walks branch off at equal distances, curving up to the mount; owing to the angle of the curve, which each walk makes, there is room for a large angle bed, or true corner bed, on one side of each of the six walks, but not on the other sides. All these, and the other angle beds at the Crystal Palace, are cut out true to art, except the two farthest from the centre in each of the chain-pattern panels. An angle bed, where two walks meet, or branch off, ought to have the two sides next the two walks straight or curved, according as the walks are straight or curved; the point of the bed should also correspond with the point of the edging, whether it is grass or box, rounded or sharp, and the broad end may be of any fancy shape, or curve. You cannot put a circle, or an oval, or a star, or heart, or pear-shaped bed, in an angle, without violating the first law of lines and forms; a short, dumpy bed, never looks well in an angle; but you often see all these defects in some gardens, though not at the Crystal Palace, with the above exceptions.

The six angle beds turning up to the Rose mount here are thus planted; the first is *Mrs. Woodroff* Verbena, edged with *Lobelia ramosa*. This new Verbena makes a famous bed, and the edging could not be better. The second angle bed is *Calceolaria angustifolia*, edged with purple Verbena; the third is with *Ageratum Mexicanum*, trained down so as to be about fourteen or fifteen inches high, and a rich edge of the variegated *Alyssum*. The whole of the tops of the *Ageratum* shoots are on a dead level, and the edging as round, full, and even as if it came out of a mould. The fourth bed is of Horse-shoe *Scarlet Geranium* of medium size, edged with a bluish-purple Verbena. The fifth, of the plain, or green variety of the old crimson-flowered *Geranium*; and the sixth, of purple *Zelinda* Dahlia, edged with white *Petunia* closely trained, and producing a very good effect. Beds of *Lucia rosea* *Geranium*; of *Unique cerise*, edged with *Emma* Verbena; of *Shrubland Rose* *Petunia*; of *Gaillardia picta*; *Nierembergia gracilis*; of scarlet and variegated *Geraniums*, of sorts; white *Verbenas* and *Heliotropes* are placed in pairs along the curved walks up the Rose mount. Each pair of beds stands on its own bottom, without much reference to the next pair; and that is a comfort, if only to prove such and such flowers in a new garden before they are admitted into an arrangement of colours.

In one pair of these circular promenade beds there is an excellent arrangement for a centre bed in a group; one is *Mangle's* variegated, and the opposite one is of the old variegated scarlet *Geranium*, if not crimson, and both are mixed with *Mignonette*, which is kept in check so as to appear equally strong all over the surface, and to form only one-third of the mass of leaves, shoots, and flowers. This is exceedingly good, and well worth imitating, but requires constant attention all the season.

D. BEATON.

ALCOHOL FROM PEA-PODS.—The Green Pea season, and the scarcity of alcohol, gave rise to a previously unknown trade in Paris. Pea-pods have been, from time immemorial, in France at least, considered as perfectly worthless, and have been allowed to encumber the pig-stye in consequence. The collecting of this rejected matter between the hours of seven and nine in the morning, became a regular occupation, and was followed by that class of persons who, during the remainder of the day, pick up

the ends of cigars. Pea-pods yield alcohol as abundantly, it has been found, as the beet-root or as pumpkins. In England, a sort of mild beer has been obtained from them, with the admixture of sage and hops. In Paris, peas are always sold shelled. Those that shell them divide them into three sorts, big, middling, and little. The littlest are the dearest, as they are the sweetest.

KEW GARDENS.

HAVING seen the Crystal Palace gardens, I went to Kew the day after, and to Hampton Court the day after that. I did intend to see the Chiswick Garden, that is to say, the garden of the Horticultural Society, and that of the Duke of Devonshire at Chiswick House, which, though not a public garden, so called, is, through the liberality of His Grace, public enough for fair criticism.

These, with the garden of the Royal Botanic Society at the Regent's Park, being the principal gardens round London, one may learn in them the state and progress of flower-gardening just as well as by travelling far into the country; for, no sooner is a move made in the right or wrong direction in any part of the country, but it is known in London, and of all the peoples on the face of the earth, the Londoners are the most alive to public or private opinions when expressed in black and white; so that a "notion" in the farthest corner of the land, on any gardening matters, has only to be broached to-day, and by this day week it is fixed by the press, and before the month is out it may become the law of the land, and the practice on the beds and borders; or it may be laughed out of countenance at once, and for ever. But the latter rains came on too soon for all the visits; still I have more in store from the parts visited than I can well get out before it is time to turn a new leaf.

The plants were all but housed for the winter at Kew when I called. I have seen the collection almost every year, from 1831 to 1852, when I last called there. I have known the ups and downs of the establishment, and many of the springs by which the different movements were made during that time. I was the first of all the gardeners who knew that the Government of the day made an offer of Kew Gardens to the Horticultural Society as if it were dead lumber. Two hours after that offer was made, I had a notice of the fact in the hands of the post-office, for the use and information of Her Majesty's opposition, and "to-morrow night" the Government were "pulled up" for the rascality. "The Di'el among the tailors" was nothing to the row which ensued, and which was the culminating point in the fortunes of the Kew Gardens. But the tide in the "affairs" of this garden turned the right way at last, and has been rising from that day to this in all parts of the garden, except, perhaps, the botanical herbaceous ground, which is badly laid out, and as badly arranged as any collection I ever saw, public or private; but the fault is in the system—a system which has been tried, and failed in many parts of the three kingdoms, and on the continent of Europe everywhere, except where it is backed up, as it is at Kew, with public money drawn from the taxes on the people. Of all the taxes, that is the only one that I begrudge—I mean, what is spent for huddling together the most ugly plants of all the principal orders, after the manner of a flower-garden. Out of acres of land, and hundreds, if not thousands of plants, not a flower could be found but of the Asters and a few extra plants on the wall borders, the rest were of the *Hortus siccus* stamp, to the very letter.

After all, I must beg pardon. Botanic collections are not for flowers, but for lecturing on, to show how

flowers come together from the hand of nature; and if they are arranged just as they are in nature, of course that is the best arrangement to learn from; but our kinds of flower-gardens are never met with in nature, therefore it is but natural to suppose that a collection which is arranged on an unnatural plan—that of a flower-garden—is not on the best plan for learning from.

The house plants were never in a better state than they are at the present moment, and many of the Greenhouse kinds could not be matched at our exhibitions for training, for health, and for cleanliness. The plants are grown here in smaller pots, according to the size of the plants, than anywhere else that I know of. Another thing meets you at Kew more than anywhere else, that is, the great age of some of the plants which no country gardener can keep alive more than four or five years. The secret of this seems to be the use of pure yellow loam, instead of peat and loam, which enables them to use much smaller pots; the small quantity of water they give from the end of September till the days get hot in the spring; the large amount of air they give to these houses; and the comparative dryness of the whole all through the winter. Hence it follows, that to get up a woody plant for the shows, in the shortest time, is not the right way to insure its life. One man gets his prizes, and wonders how it is that he loses four times as many plants as a neighbour who never shows at all, and whose gardener is little better than a labourer.

Perhaps, at Kew is the largest collection of *Acacias* in the world—all in yellow loam and small pots. The fast-growing ones they must nip and stop tremendously to keep so regular. Our *Acacia Drummondii* for the exhibitions is not the *Drummondii* at Kew, nor anything like it, nor one quarter so good. Yet they seem to be as fond of flowers, in doors, as any of us. The greenhouses are very gay all along the paths with Fuchsias, Scarlet and other Geraniums, Hydrangeas, and lots of China Asters in pots, and so forth. In these decorations they seem to give preference to *Fuchsia Inaccessibile*, seemingly a cross between *Coralina* and *Riccartonii*, a fine one for a pyramid or standard. Also *Duke of Wellington*, a fine reflexed flower, with a violet-purple inside, *Monarch*, *Duchess of Lancaster*, and *Banks' Glory*, which is in the way of *Formosa elegans*. The *Lady Middleton* Geranium, which they had from a London nursery, by the name of *Rosea Superba*! *Miss Turner* Petunia, a light flower, much streaked. *Boule de Niège* Geranium, is likewise a good pot variety with them; but it and *Skeltonii* have failed, as bedders, at the Crystal Palace; and the bed in which they are planted there, on the Rose mount or mound, had to be filled with a pink Verbena; so we have still to look for a good white bedder in the Scarlet breed.

The best managed collection of *Cape bulbs* are here grown in cold frames, in large wide-mouthed pots, and several bulbs in one pot. There were several pots of *Hamantus coccineus* in bloom along the stages, brought in to show while they were in bloom, and five or seven large bulbs in each,—the leaf about an inch or two in length by the time the flowers are over. What a change since all such bulbs used to be seen in hot stoves, as if they were real stove plants! The old plant of the Pampas Grass, *Gynerium argenteum*, is gone; and its place is now occupied by three young ones, and one of them is throwing up a spike of bloom, which is all they will see of it this season; but they have 3,000 seedling plants of it in little pots, and in cold frames, looking as green as wheat or barley. These are from imported seeds, which were sown last July, or earlier. The Horticultural Society have also a large stock of seedlings of it, and the nurseries are advertising it by the dozen, and by the hundred, cheaper than new bedding Geraniums. By-and-by, the Agricultural Society will be giving prizes for the best mode of making hay of it, and I cannot

help thinking that it would make a famous mixture with Rowan, or after-grass, so as to dry into hay for winter use. Rowan is troublesome to make, at all times, into good hay; but an acre of Pampas Grass, with five acres of Rowan, ought to "make" well, and be the finest hay in the country. Cattle might not like it by itself so well, if at all; but mixed in Rowan, the flavour would change, and be agreeable. Thousands of wild horses have no better food, without any mixture at all.

The beautiful *Lapageria rosea*, or Climbing Lily, of the deepest crimson, at this season is beautifully in bloom,—trained up at the south-end of the hardy Fern-house, which has a north or north-eastern aspect. Those who have attempted to grow this most charming plant in heat ought to have been in the Crimea long ago. When I was here, about the same time in 1852, this plant was planted out in the border close to where it stands now. It is now in a pot, and such a pot! You never saw a pot like it before; but the very nature of the roots suggested the thing; and as the plant does so beautifully in it, and flowers so freely as it does now, this seems to be the real kind of pot; and depend upon it, between ourselves, the form of pots must soon be as much varied as the forms of flower-beds. This pot for *Lapageria rosea* is just three inches deep and twenty-four inches across the mouth, outside measure by the eye. The compost might be one-third yellow loam, the rest peat, leaf mould, and the whole made light and free with clean sand.

D BEATON.

(To be continued.)

TOADS.—I have this summer noticed a great mortality among the toads, their dry and empty skins are to be met with wherever I go. From what I have noticed, I suppose they are destroyed by some insect, or fly, that lays its eggs on their skins, which, when hatched, the maggots find their way into the toad's nostrils, and there, in even ranks, eat into the head of the living reptile, till they destroy its life, and then feast merrily on the contents of its hide, leaving only the dry skin of what was but a few days before a useful insect destroyer. Has this mortality among the gardener's friends been noticed by others? Is it of common occurrence? or can you, or any of your readers, oblige me by saying to what insect, or fly, this wholesale depredation is to be attributed?—B. P. BRENT.

GLEANINGS FROM BERKHAMPSTEAD NURSERIES.

(Continued from page 21.)

ORCHARD-HOUSE.

MANY houses and pits are now used for thoroughly ripening the buds of young trees training as bushes for this object, such as Figs, Peaches, and Apricots. Cherries and Plums in the open ground did not look as if they would require this attention. Many Apples and Pears, in pots, were well loaded with fruit. The Orchard-house, *par excellence*, is comparatively new, and is 130 feet in length by twenty-four feet in width, span-roofed; one side facing the north-west, and the other the south-east. The first side is honoured with a wall from three to four feet in height. The second side is open, except being partially screened by *Arbor vitas*, and is supported on stout Larch poles. The centre of the house is supported in a similar manner. The roof is fixed sash-bars, about the usual size; but for such a length of roof, four rafters on each side are used to tie the whole firmly and strongly together, and a few iron rods cross the house to effect this more fully. I believe it is intended to make this

house nearly as much longer some day, so that the end shall reach the public road; and a better entrance to the nursery, and a pleasant promenade, could hardly be desired. Like many other places that have out-grown their first dimensions, the present entrance is out of all proportion with the character the nursery is assuming. This huge house is still open at the ends, and is filled with fruiting-plants in pots; some ripening their wood, and older ones perfecting their fruit. Most of those who attended the London shows know how well small plants were fruited. I was too late to see many of the Peaches, except some late ones; one of these had from two to three dozen of middle-sized fruit hanging like ropes of Onions. To verify reports, I counted, on some plants not larger than a good-sized *Fuchsia*, the places from whence three or four dozen of ripe fruit had been taken. The old man, who particularly looks after the fruit-department, spoke, in the presence of others, who had counted them, of an *Aetion Scott* Peach having from seven to eight dozen of ripe fruit. These larger plants were in 13-inch pots, and must have received a fair amount of nourishment. There can be no question that, by pot-culture, a great saving in *space* can be secured, with the addition of an extra amount of labour in the shape of watering. Crops will, however, be more certain if due attention is given; and quality and size will depend upon the resolution to thin enough. To avoid mistakes, I may mention, that the earliest-fruited plants were not forwarded in this open house: I will presently mention under what circumstances.

VINE PLANTING.

The south-east side of the house is planted with Vines, consisting of all the known and heard of varieties of the *Black Hamburgh*. The canes have mostly all reached the apex, so that in a couple of years they will begin to tell what they are. Mr. Lane says, that most likely he will build a wall beneath the wall-plate on that side, some day, and, perhaps, may use alternately some simple mode of heating. At present, some youngers might get an idea on Vine border making. The Vines are planted outside. Seemingly, a plant or two of *Arbor Vita* have been removed, at equal distances, from what seemed to have been a hedge. In these open places a barrow-load, or a good armful of Fern seems to have been laid down, and on that a mound erected of the best top spit from the common, some two-and-a-half feet high, and from three to four feet in diameter, and on these hillocks the Vines have thus grown vigorously; more fresh soil will be added as needed. The whole of the made border will thus be above the surface.

SIZE OF SQUARES FOR FIXED ROOFS.

I was nearly forgetting this. With swing sash-bars, the usual width has generally been twenty inches across, by twelve inches placed lengthwise. Last winter convinced Mr. Lane that the width of twenty inches was too much, and he would now prefer having the sash-bars nearer, say fifteen or twelve inches, and making the squares longer the other way. I am imagining the size, I forget the one he thought best; but he said that the weight of the snow, last winter, broke and cracked a good number of twenty-inch wide squares, while all those considerably narrower escaped.

BRICK ARNOTT'S STOVES.

On the opposite side of the road, from the main entrance to the nurseries, are placed other grounds, pits, and houses. To one of the houses I will for a moment refer. I used to see the place occupied as a cold pit for Roses, and covered in winter with fern-thatched hurdles. It is now a *low* house, some fourteen feet wide and one hundred feet long, with a deep pathway in the centre,

and an earthen platform on each side, at present filled with Figs, Peaches, &c. The northern end either has not had a pathway, or it has been filled up, as the width has been covered with saw-dust, and into that the pots were plunged. Without describing the peculiarities of the roof, the distinctive feature of the house is, that it is built on the *slope* of the ground, and not on the *level*, so that the extreme far end is about five feet higher than the near end, a matter of some importance, I believe, in the mode of heating. The strong-built Arnott's stove is placed at the near end, inside of the lowest part of the house, the smoke being conveyed about twenty feet near the *top* of the back wall of the house, in a zinc or galvanised iron tube, and then passing out through the back wall. The stove is elevated to stand quite clear, except on the side against the back wall, so that the cold air comes in beneath and around it, as fast as the air in contact with the upper part gets rarified and mounts upward. In a very short time the heated air gets to the extreme of the 100 feet, and the heat, as continually, keeps bringing the cold air along the decline of the pathway. It was intended to shut off the stove from the house, unless on one side, but the circulation was too languid. The door of the partition was left open, and, as the cold air could thus get all round the stove, the farthest extremity of the hundred feet soon got as warm as the air in the neighbourhood of the stove itself. As a proof of this, I was shown plants that had stood there, close to the stove, all the winter, quite uninjured. As another proof, I may mention that the Peaches and Nectarines that perfected their fruit in pots somewhat early, and those others that ripened in the end of August and the beginning of September, in the Orchard-house, had received a help by being placed at the farther end from the stove in the same sawdust where other plants are now plunged. With all our improvements, what mode would beat this for economy and efficiency combined,—a hundred feet by fourteen feet heated by a well-built brick Arnott's stove, with a short metal pipe for conveying away the smoke, and neither flue nor water-pipe? Of course, it is understood the temperature was never raised high.

I have exceeded my bounds; but there are many more things worth mentioning. For the sake of Rose-growers, permit me to add, that the large exhibition plants are plunged out-of-doors in sawdust, &c., in summer, are potted afresh in September, pruned in November, and housed before they are subjected to much frost. *Young Roses*, just potted, were being plunged in hotbeds out-of-doors to encourage root-action, and keep the tops from being drawn. The beds were formed by keeping rank dung below, and the wasted at the top. I must not say more; but that the antiquary, the lover of the picturesque and romantic, and lovers, too, in the more general acceptance of the term, will spend a pleasant hour in surveying the ruins of

BERKHAMPTSTEAD CASTLE,

Or by whatever name it may be called. The railway sweeps past the base of what must have been an impregnable keep in the days of Ethelbert and the Norman William. How great the contrast between *then* and *now*! How striking the change from the bustle and clang of the railway, to these solitudes, in which even the birds seem never to have been scared! The tops of the walls that bounded the three moats are now laid with gravel for walks, and seats are placed on the summits of the towers; while trees and shrubs have usurped undisputed dominion. Most fantastic are the modes, yet perceptible, by which vegetable expansion has penetrated and overthrown the granite-like concrete walls of the builders. I have heard of sighs and desires to behold the vegetation-ruled cities of Central America,

once the abodes of civilised existence. We may often gratify such curiosity, though not to such an extent, nearer home. For the comfort in visiting such a ruin, the public are indebted to the noble family at Ashridge.

R. FISH.

MILDEW ON VINES.

WHEN speaking of Mildew on Vines, it is almost needless to say it is a new thing of late years; and though much has been written and said on the subject, still the disease goes on; consequently, any hints on the subject are worthy of notice. What is commonly called mildew, appears, more or less, during summer, and some sorts of plants are seldom free from it; but the first time I saw the pest on Vines was in 1851, at Hampton Court, both in hothouses and open walls; since then, it is spreading broadcast everywhere. If I mistake not, what is called the Vine disease abroad is mildew, or, rather, the evil effects of it. Both the learned and unlearned on the subject of mildew agree that the atmosphere has much to do in producing the plague. Any mist, or haze, somewhat denser than usual is commonly called a mildew; but the learned tell us that the pest is a parasite fungus previously established, and that such weather only hastens its development. This I believe to be the correct view, and if mildew only appear or spread in cold weather, we might fall in at once with the "Poet of the Seasons," who says "a brush from the Russian winds brings on the clammy mildew." But poetry and facts are not seldom at variance; in summer, the fungus flourishes in hothouses, in moist or dry heat, of 80° or 90°, as well as in 40° or 50° during winter. I have already said that some sort of plants are seldom free from mildew: rarely will you find the little annual, the Shepherd's Purse, entirely free from it; even the common Groundsel is at times laden with the mealy pest. I do not exactly say that such is the same sort which attacks Vines, but I can see no difference between that so common on our climbing Roses and the disease in question: be this as it may, they are related, at least; and, for want of better information, I call all such the storekeepers of mildew, from whose inexhaustible stores their neighbours are inoculated. Sudden changes of the weather may cause plants to throw out some excrescence fit to receive the dust or spores of the fungus.

This may have led to the belief that plants generated the disease in themselves, without being previously outwardly impregnated. Such was a strong opinion about forty years back; and I recollect, when a boy, a discussion between Mr. Hay, the able hothouse planner, and my father, on this very subject. Mr. Hay advised him to insert quicksilver into his mildewed peach-trees, but his reply was, "Hout man! ye may as well spit upon them;" and began to rub the mildewed spots with his wet fingers, observing that they might turn rusty, "But it wanna gang farther." This may seem a silly story, but I have often known the pest thus checked. I am persuaded there is much analogy between mildew in plants and itch and other cutaneous diseases in animals. Sulphur was tried as a cure at the time referred to, and, like the doctor's bread pills, did neither good nor harm; but vapour from it will destroy mildew, which I shall notice as I proceed. If mildew is not a vegetable itch, it is like that disease, catching, as just hinted, and the puzzling question is, why it did not attack the Vine until late years? If they were only affected by it in houses where all sorts of plants are grown subject to mildew, one might say the Vines could not escape, but the reverse is often the case, under the best management. In short, the thing is so perplexing, that, like the potato blight, it remains an unsolved problem. This being the case, it is hard to state a real cure, with safety to the crop.

Of late years it has appeared on the Vines under my care as early as February. I have checked it by merely rubbing the spots, which generally appear first on the upper sides of the leaves, with my wet fingers; using a soft shaving-brush and clean water for the bunches, giving them a good syringing. Thus I get pretty good grapes; but I need not tell the practical gardener that all bloom will be lost, and the berries shino like Morello cherries. Hay observes, that mildew will not attack the berries when in that state, though it certainly

does the young foliage and late bunches which may happen to be on the lateral shoots, and so strongly, that the green berries soon become white with powder, if I may so express it. Being tired of this sort of thing, I wrote to one of our best Grape-growers on the subject, and the following are his words:—"I write to you with some information respecting mildew on Vines. First, after the sun is off the houses, close them up, light your fires, and get the houses up to 100° then take some flowers of sulphur, and lumps of new lime, mixing them together in water about as thick as whitewash, putting it on the top of the flues or pipes with a brush, keeping the same heat for about three hours, and you will find that vegetation will not in the least be injured. If you find that the white spots do not turn brown, repeat it two or three nights successively. Be sure not to let fire touch it." Here is the pith of my reply. "I knew your cure, in part, before, but was afraid to apply it, having a great dislike to the strong vapour from sulphur, knowing the evil effects of it on tender Vines. However, I gave your plan a fair trial, and am glad to say with some success." But I do not consider the plan safe before the Vines bloom, for I found some of the young shoots were injured, and, what was worse, the Grapes themselves turned brown, or a sort of *rust*, being the roots of the destroyed fungus, fixed firm upon them. In adopting this cure, one thing is to be observed; without the sun's aid, it is not an easy matter to get a Vinery to 100° without the flues or pipes getting very hot, and the sulphur vapour from such will certainly scorch the Vines and bunches. Consequently, for safety, I advise the washing plan above-mentioned, until the crop is cut, and then to apply the sulphur and lime vapour to kill the pest before it takes to winter's quarters, if I may so express it.

This brings me to another plan of cure, viz., after the Vines are pruned, paint them over with a thick mixture of lime and soft-soap, sulphur, and other poisonous stuff; from such I have found no good; nor, as regards mildew, from having the houses re-glazed, painted, whitewashed; in fact, no parts escaped the brush, except the inside of the Vines, yet the pest appears again in spring, as if the seed of it had been inhaled into them somehow or other the previous season—a thing hard to believe.—J. WIGHTON, *Cossey Gardens*.

HANDSTYLE HOUSE.

THE RESIDENCE OF G. C. SCHWABE, ESQ., NEAR LIVERPOOL.

THE readers of THE COTTAGE GARDENER have now an opportunity of judging for themselves of the beauty of this gentleman's conservatory. I have had occasion, when writing on suspending plants, often to refer to it; and, in consequence, I have no doubt some curiosity has been excited to ascertain what sort of a building it is. I should long since have done my utmost to describe it, only I hoped to prevail on our Editor to publish an engraving. He has now done so; and, therefore, I need not enter so minutely into the subject. I think every one that sees the engraving will say, that I wrote but the truth, when I asserted, that it was the most elegant building of the kind in Great Britain. I have watched its progress, from the foundation stone being laid, up to the last touch of the painter's brush. I had the pleasure of placing the climbers to the pillars, and the first plants on the stages, and I saw it when it was first lighted up with gas, after the plants were placed, and I can say, with confidence, that I never saw, altogether, a finer effect with plants in a conservatory.

The view from the drawing-room, after the plants were staged, was beautiful,—whether seen by daylight or gas-light. With these few preliminary remarks, I shall now proceed to give a description of the place, the conservatory, and the houses used to grow plants in, to furnish a succession of plants in flower to keep the conservatory constantly supplied.

Handstyle House is above five miles from Liverpool, situated in a pleasant part of the country, thickly

studded with the residences of the princely merchants of Liverpool, with a good view of the woods of Knowsley Park, the seat of the Earl of Derby, distant about two miles. It may be considered only as a modest villa residence, with a good lawn, neat flower-garden (converted last season into a Rose-garden), and a kitchen-garden of moderate extent. There is a good collection of the best Hollyhocks, grown remarkably well. They are staked with stout iron rods, thrust very deep into the ground. These are a very effectual stay against the winds; and, as they are painted every year, I may say they will last for ever. Dahlias, too, are cultivated to a considerable extent; they are placed in front of the Hollyhocks; and when both are in flower an excellent effect is produced.

Mr. Schwabe is a great amateur in Roses. The flower-garden in front of the greenhouse was formerly filled with the usual bedding plants. These are all discarded, and the beds filled with Roses (perpetuals, chiefly) on their own roots. They are kept dwarf by severe pruning. The mode, or rather arrangement of the kinds, is novel. Each bed has a different variety planted in it; that is, one bed is planted with *Rose Géant des Batailles*; the next, probably, with *Souvenir de Malmaison*; a third, with *William Jesse*; a fourth, with Moss Roses; and so on throughout the whole. This Rose-garden, as it may now be termed, is very appropriately surrounded with a hedge of climbing Roses of various kinds. The garden is laid out in a geometrical style; the beds formed with easy flowing outlines; they are edged with ornamental tiles, and the walks between them are gravelled. When the Roses are in bloom the whole forms a very delightful scene.

This Rose garden is divided from the kitchen-garden by a bank of evergreen shrubs, Rhododendrons, &c. The greenhouse faces this Rose-garden, and is a handsome building, well furnished with the usual plants, such as Camellias, Azaleas, Heaths, &c. These are grown now, chiefly, with a view to remove them, when in bloom, into the conservatory.

At the far end of the kitchen-garden there is a long range of glass houses reaching entirely across the garden. Before they were put up the wall was covered with trained fruit-trees. These were all removed, and Peaches and Nectarines planted against the wall only. The houses are about twelve feet wide. A flat stage, three or four feet high, is placed in the centre, with a narrow path on each side.

The front windows are lofty, and shelves are fitted up to hold plants. This long range of glass is filled with such plants as Geraniums, Cinerarias, Calceolarias, Fuchsias, and other soft-wooded plants, besides Lilies, and other bulbs, forced Roses, &c. These houses are also the nursery for basket plants; here they are grown and trained till they are flowered. The intelligent reader, whether amateur, or gardener, will at once understand what an excellent reserve-garden, under glass, there is here to grow plants to bloom in succession the greater part of the year. And it is a fact, that these plants do not interfere with the health and productiveness of the Peach and Nectarine. I have seen good crops of as fine fruit as need to be wished for grown on the trees. The insects that trouble the fruit-trees are the species that infest the plants also, and the same means, of course, keeps them both clear of them. I mean, smoking with tobacco for the Green Fly, and severe syringing for the Red Spider. I have always found the trees remarkably healthy, though so many plants are grown under the same roof. Hence, two objects are attained, namely, a good crop of fine fruit, and a great number of fine, well-grown, and remarkably free-bloomed plants. The Vine would not answer both purposes so well. In the first place, the leaves would shade and draw the plants; and, in the second place, the plants would not bear the close, high temperature necessary for

the Vine to ripen its fruit; whereas, the Peach answers exactly to the treatment, as to air, heat, and moisture, necessary to the well-being of the plants. Every cultivator of greenhouse plants in a lean-to house may follow this example, and cover the back wall with Peach-trees, and thus secure an early, certain crop of excellent fruit.

In another part of the kitchen-garden there is a sunk plot of ground thickly covered with rough coal-ashes. On this plot are placed a number of frames, in which China and Tea-scented Roses, and various other plants, are sheltered during winter.

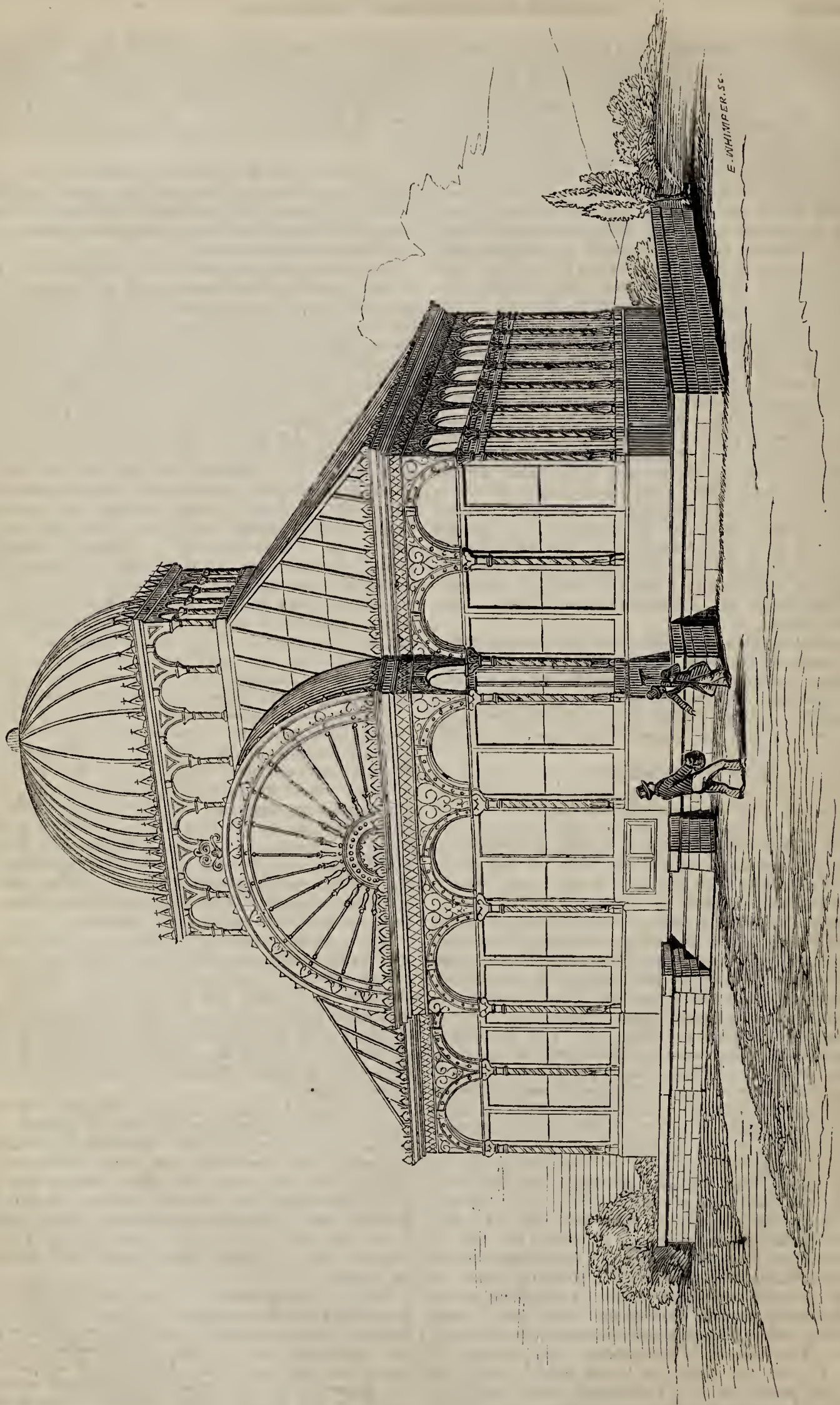
I have now cleared my way to the principal object I had in view in writing this paper, namely, a description of the beautiful unique conservatory. Mr. Schwabe has given me leave to describe it, and put in, with the description, the accompanying elevation and plan, entirely for the purpose of doing justice to the ability and great taste displayed in its erection by the architect, Walter Scott, Esq., of Liverpool. I consider, in every point of view, it does him great credit, both for its architectural beauty and a fit habitation for plants. Plenty of light is admitted, and there are excellent contrivances for giving abundance of air. It is extremely rare that an architect puts up an habitation for plants suitable for their well-being; but in this instance, Mr. Scott has not only studied the beauty of the building merely as a building, but also studied the requirements of its proposed inhabitants. Hence, the gardener has not to struggle hopelessly to keep his plants healthy; he has only to give the due supplies of water and air, and the plants luxuriate and thrive, to his great credit and the enjoyment and satisfaction of the owners. From this beautiful and excellent example of Mr. Scott's skill and taste in this particular branch of his business, I do think and hope he will be called upon to erect many such elegant structures.

Situation.—The conservatory is placed at the east end of the mansion. A shrubbery and some large trees formerly occupied the site. These are all removed, and the lawn extended on all sides. Hence it forms a conspicuous object from every part of the garden, and is not shaded by anything, on any side, excepting the west, by the house. It stands on an elevated platform above the grounds, and there is a flagged walk, four feet wide around it, with steps at the east end, leading into the garden from the garden entrance. At the other end is the door that opens into the drawing-room, hence it is always accessible in all kinds of weather.

Size.—As the engraving is drawn to a scale, any one with a pair of compasses may easily ascertain its extent. I may, however, just mention that it is square, and measures twenty-five feet on every side. There is a well-proportioned dome in the centre, around which are openings to let out the heated air. The front windows all open to let in cold air; hence there can be given, in all suitable weather, a thorough draught of fresh plant-invigorating air.

The beautiful tracery seen above the front windows is double. This arrangement allowed the glazier to put in the glass between. The frame-work of the entire structure is iron, and was cast at the Coalbrook Dale Company's works, and it does them great credit; it is so well and cleanly cast, and the parts are so well fitted together, that a cursory spectator might almost imagine it had been cast entire. It is painted with a kind of subdued drab, or stone colour, which adds greatly to its beauty.

Internal arrangement.—As the grand object was to keep up a constant succession of plants in bloom, it was desirable to have stages to place them on. Various plans were considered, but at length Mr. Schwabe fixed upon one of his own invention. The dome is supported by four pillars, which, of course, are equidistant from each corner of the house. These pillars it was desirable



- A Stands for Flowers
- B Beds
- C Grating to admit Hot Air
- D Fountain
- E Terrace
- F Walk

DRAWING

ROOM

PLAN



SCALE OF FEET

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should be clothed with flowering creepers. Now, by placing a circular stage around each pillar, the centre of which might be a circular box, to hold soil for the creepers; two objects were attained; first, soil for the creepers; and, secondly, a fitting place for the stages. The stages were accordingly there placed. The general figure of each is a circle; but the outside is as it were crenated, or vandyked. The stages are rather more than six feet diameter at the lowest range. There are four ranges of shelves to each stage, elevated at such a distance from each other that the plants of the lowest stage conceal the pots on the second, and the second the third, &c. By this arrangement each stage presented, when furnished, a complete pyramid of flowers. In order that each stage might be as dissimilar as possible, and yet possess variety, one stage was furnished with New Holland plants, another with Cinerarias, a third with Geraniums, and the fourth with Heaths. This was much more in good taste, and presented a greater variety than if the whole stages were furnished with the same plants indiscriminately mixed. It was, in fact, on the principle of massing plants, as is now practiced in the beds of the modern flower-garden. Then the first set of plants would be succeeded by others arranged as much as possible, on the same principle. I understand, that at this time the stages are furnished with Fuchsias, Lilies, and Chrysanthemums, together with autumn-blooming Heaths.

These circular stages allow plenty of room around them to view the plants. As the house is square, there are large spaces in the corners; these are formed into triangular beds, and in those some of the best Perpetual and Tree-scented Roses were planted, and some such plants as the *Calla æthiopica*, *Brugmansia suaveolens*, an Orange and Lemon tree. These formed again a pleasing variety to the masses on the stages. In the large centre, between the four stages, a single unique, drooping plant, with small foliage, was placed; and in the space near the garden entrance is a very unique fountain, furnished with jets, supplied with water from a cistern on the roof of the house.

In order that nothing might be wanting to render this house complete, there were two rows of suspended baskets, with plants in them drooping down, and, as it were, to meet their fellow flowers on the stages.

The floor is a composition of binding material, which is warranted never to break up, unless violence is used to break it. It is coloured variously, in the form of flower-beds, as may be seen on the ground plan. This concludes my brief, and, I consider, feeble description of this beautiful building. I shall add a few words about its size. I consider it is the happy medium between the extravagantly large and the ridiculously small, and is, therefore, suitable for any moderate villa, or even mansion residence. It is conveniently placed, easy of access from the garden as well as the dwelling-house. A more enjoyable plant-house I never met with.

I may also just add a few lines on the heating. The boiler is saddle-shaped, and made so as to expose a great surface to the fire and yet not to hold much water. The pipes are concealed under the floor, and are five inches diameter. The heat rises through gratings in the open parts of the floor; I mean where no plants are placed, the draught of the fire being so that it can be regulated any way, from the least possible to a perfect roar.

My description applies to the time when I saw it last March. With the help of my description, and the beautiful drawings, I think a tolerably correct idea may be formed of this place and the conservatory. Whoever would wish to more fully realize its beauties should visit the place and see it in its real character. I will venture to say, that they will be then far more delighted than any description, or even the drawing, can afford the reader.

T. APPLEBY.

CANARY BIRD BREEDING.

"R. B., Ratcliffe-on-Trent," being desirous of some information as to how he should proceed to obtain success in Canary breeding, and having myself been a breeder of Canaries and Mules for twelve years, I am happy to impart, for his and others information, a few remarks drawn from my, in many cases, dear-bought experience, should you consider the subject suited to the pages of THE COTTAGE GARDENER.

The time to put up the birds for breeding is in spring; most fanciers commence about St. Valentine's Day, but I consider that rather too early for such seasons as we have had of late years; and I think the first or second week in March quite soon enough; nor were my birds arranged this year until nearly the end of April, and the first eggs, according to my register, were laid on the 17th of May, and, notwithstanding the lateness of the season, I have been tolerably successful with the broods, and have had better success with breeding and rearing Mules than ever I remember before. But before the birds are introduced to their breeding quarters, it will be necessary to put the place in order; after it is found secure, and made clean, it will be of the greatest importance to see every corner and crevice properly secured or tinned over, to guard against the inroads of mice, who are naturally attracted by the seed, and if once they gain admittance will soon destroy both eggs and young birds, and sometimes even the old ones. A few boughs should be nailed up as perches for the birds, both where they can enjoy the sun by day and shelter at night. If a room is used, I remove the window-sash (which *should* face the south, but *must* be so placed that the sun can shine in some part of the day), and place in its stead a projecting wired frame; the sides of the room are to be fitted with slips, or long thin pieces of wood, nailed to the walls in two or three tiers, and projecting about an inch, behind which the boughs or bushes are inserted so as to form a thick hedge or bush for them to build in. I generally use Gorse or Furze, but prefer Cedar boughs when procurable. Bechstein recommends "Pine boughs cut in February, which do not therefore shed their leaves;" the floor should be covered with coarse sand, or fine gravel, and a few lumps of old mortar, mixed with a little salt, placed where they can pick it; hoppers of good, clean, and unmixed Canary seed, and a fountain of clean water are, of course, indispensable; as also an occasional bath. I strongly advise only one male in each breeding-place, unless very large—one male is sufficient for four females; and by attending to this rule, more young ones will be obtained, and fewer quarrels ensue than if two are allowed.

As soon as the birds are turned in, commence feeding as follows. In addition to the good, sound Canary seed and clean water, they should have daily, an egg, boiled hard, chopped up fine, shell and all, mixed with crumbled bread, about a dessert-spoonful of moist sugar, and a handful of seed, either hemp, rape, or mawseed, or, indeed, any seed that is slightly oily, and not of an injurious nature. Gold of Pleasure seed I have used with much success. This soft food should be given fresh every day, from the time the birds are first put up, till the last broods can do without it. Green-meal should be supplied in abundance, fresh every day, such as seedy Chickweed, Groundsel, Shepherd's Purse, Dandelion-tops, and in autumn, ripe Plantains. The best materials for the nests are fine root fibres, broken in short lengths (Elm-roots are the most easily procured), clean moss, and, above all, a kind of white moss, of which I do not know the name, a sort of Lichen, or Liverwort—the powder from which assists in keeping the nests clear from mites, which otherwise destroy many broods;* as a lining, rabbits' down, and lamp-cotton cut in short lengths, are, I consider, the best; when, however, the ends of the cottons of candles can be had, the little grease on them seems to be almost a specific against those most troublesome of pests, the red mites; but too much grease would disfigure the old birds, and perhaps spoil the eggs.

It is not often that the birds will require much interference with them; but as they are not in a natural state, it will be advisable to supply the lining material cautiously,

* This Moss is the *Cenomyces rangiferina*, or Rein-deer Moss.—ED. C. G.

or the birds will sometimes bury their eggs; and it may also be necessary to prop up or secure a dangerously-placed nest. I would particularly advise the removal of all old nests as soon as the young birds leave them, and avoid the use of *old* materials, or *hay*, for building purposes.

Goldfinches and Bullfinches are usually too busy and prying to be allowed to associate with the breeding birds, though I have known several honourable exceptions; but it is advisable to exclude all unnecessary gentlemen from the good ladies' establishment.—B. P. BRENT.

(To be continued.)

QUERIES AND ANSWERS.

GARDENING.

PLANTING A SCREEN-BANK.

"We have an embankment that divides the kitchen-garden from the pleasure-ground, with a south-west aspect, on the top of which, to shut out the kitchen-garden, are planted Mountain Ash in arches. In the summer time these look very well when covered with Nasturtiums and other annuals; but I purpose to fill the spaces between the arches with evergreen Roses: will you favour me with the names of the sorts I should have for this purpose?—A YOUNG GARDENER."

[A capital idea. Plant *Felicité perpetuelle*, *Myrianthes*, *Princess Louise*, *Princess Marie*; also *Donna Maria*, and *Rampant*, both pure white.]

AN OXALIS IN POTS.

"I have planted some *Oxalis* bulbs in 48-sized pots, and purpose plunging them in the open borders, which are well-drained, and covering with about two inches of ashes. Will they thus stand the winter? I am also serving some *Ixias* similarly.—CAROLINE."

[That depends on the kind of *Oxalis*, for some of them are quite hardy, and others very delicate in constitution, and the least frost would destroy them. Keep the frost from them, and from the *Ixias*, and you have nothing to fear. It is an excellent plan to have them in pots, because you can remove them without harm as soon as they are out of bloom.]

HEATING FROM A CISTERN.

"I am erecting a small Cucumber and Melon-house, to be heated with hot-water; the length is thirty-two feet by ten-and-a-half, inside measure. I shall have a partition in the middle. It is proposed to have the furnace at the back of the range, and work it, right and left, from the boiler into a flow-pipe from the boiler into a small cistern, and to take the pipes from the cistern for top and bottom heat. The question I beg to ask is, where would be the best situation for the cistern? I shall have a pit in each partition, five feet wide, for soil for the plants, and take a flow and return-pipe close to the front wall for top-heat, and a flow and return through the pit for bottom-heat. I shall have a path close to the back wall, from end to end, and a door in the partition close to the back wall. I shall have a saddle-boiler. What sized boiler would it require to heat such a house?—J. Y."

[A middle-sized boiler will do. Your plan is very similar to one described and commented on by Mr. Fish, in a late number, which answers well. Place your cistern inside one of the divisions, as near the boiler as you can, and also as near the glass as possible, as the more fall you have from your cistern the better will the pipes work. From one to two feet above the upper pipes, for top-heat, will be desirable. Be sure that the top of your boiler is lower than the lowest part of the pipes you use for bottom-heat. See what was lately said upon having air-pipes inserted in the highest points of the water-pipes. We think you thoroughly understand what you are doing; if not, write again.]

USES OF THE SUNFLOWER.

"Can you, or any of your readers, give me some information relative to the Sunflower?"

"I have this year grown a large number of plants, intending the seed for my fowls; but I have heard that the plant is likely to become a valuable article of commerce; that the seed is used for fattening animals in the place of oil-cake—the leaves and seed being boiled together—and that the stalk, also, is manufactured into string. Can you inform me where this is done? as I should be happy to dispose of my stems, and also of some of the seed, which is very fine and large. Should the stems be in their green or dry state? I imagine the former. If the leaves are not boiled with the seed, (as in my case the seed is thrown down raw to the fowls) are they of any other use?—A COUNTRY CURATE."

[We shall be obliged by information relative to any of the above points.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

BEDFORD. November 7th and 8th. Secs., J. T. R. Allen, Esq., and F. A. Lavender, Esq. Entries close October 16th.

BIRMINGHAM. 11th to 14th of December. Sec., J. Morgan, jun., Esq. Entries close November 10th.

DORCHESTER. 24th and 25th of October. Sec., G. J. Andrews, Esq.

DURHAM AND NORTH YORKSHIRE, at Darlington, 6th and 7th of December. Sec., J. Hodgson, Esq. Entries close November 19th.

LANCASHIRE (EAST). At Colne, Oct. 31st, and Nov. 1st. Secs. Messrs. T. and E. Booth, Marsden, near Burnley. Entries close October 17th.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. Sec. R. Hawksley, jun., Esq., Southwell. Entries close November 20th.

SOUTH DURHAM AND NORTH RIDING OF YORKSHIRE. At Darlington, December 6th and 7th. Sec. Jno. Hodgson.

TAUNTON AND SOMERSET. Nov. 23rd and 24th. Sec. Wm. Buncombe, Esq., Taunton. Entries close November 3rd.

N.B.—Secretaries will oblige us by sending early copies of their lists.

THE editor of an obscure country paper complained of the obstinate character of the late Emperor of Russia, who would persevere in his headstrong career, although he, the editor, warned him of the consequences every week. In like manner, we shall be disposed to complain, that many of our suggestions are either not read, or they are not attended to.

At almost every Show, where one person exhibits three pens, they are so sorted and made up as to exhibit mediocrity in each,—generally consisting of one very good bird, one good one, and one inferior. Now, the best bird, taken out of each, would have made one first-rate pen. We know no yard that could, at one Show, send out three Prize Pens. The object should always be to make sure of the head prize, if possible; and to do this, the very best birds are wanted. Again, at late Shows, how many pens lost all chance of success by one hen being disabled and half-eaten by her companions. This would be avoided if they were used to be together sometime before the exhibition.

We like to see the owners of better birds than common send several Pens; and, though the *élite* of the yard may be "not for sale," or protected by prohibitory prices, yet some not so choice should be put at moderate sums, within the reach of those who sigh for but cannot afford others. We cannot impress too strongly on exhibitors, especially young ones, that although the prospect of success is often entirely done away with by

trimming, a bird is never really improved by it, and it is always apparent to a practised eye.

We like to be at the beginning of the class, and should always enter early.

It is a condition of success to breed largely, in order to have good choice of birds from which to select, and while they are young. Faulty birds should be got rid of at market, or for table, before they have cost much money.

The management and feeding of birds at Shows are so much improved of late, that if they are in good condition when sent, there is little fear of their suffering; but, in every yard where birds are often going and coming, there should be a pen, or paddock, especially devoted to them on their return. They should be put there for a few days, and each should have a tablespoonful of castor oil immediately on their return. Let them be fed with soft food for a few days, and we shall hear nothing of "Exhibition fever."

Those who confine and over feed their birds for the sake of weight must expect disease, whether they exhibit them or not; a bird should only be fatted for the table, and those who practise this for a livelihood know that a fatted fowl is useless for any other purpose. During the rage for Cochins, many know, to their cost, that stock condition is not to be found in a bird choked with fat.

THE PROTEST AT THE LATE ANERLEY POULTRY SHOW.

YOUR correspondent, "Fairplay," has put the case of protest at the late Anerley Poultry Show, "fairly and clearly," and there are few persons who will not entirely concur with him, that it is not very creditable that such a case should be passed over without inquiry. In the P.S. remark by the Editor, there is an error. The protest was *not* made by the Rev. Mr. Boys, but by Mr. Lewry, who may safely appeal to every right-thinking person, both as to the course which he adopted, and the manner of his doing it. Dissatisfaction, on different occasions, has, unfortunately, arisen at various poultry shows, and complainants have frequently received but little sympathy from the public, because they have too often failed to appeal to the proper source for redress. This, by common consent, is now admitted to be the "Committee," a part of whose office it is to settle, as well as to prevent, differences. To this tribunal Mr. Lewry *did* appeal. Mr. Davies, in his entry of Pen 77, in the chicken class, states them to have been hatched the *last week in January*. Mr. Lewry declared that he well knew two of the birds, and that he was ready to state, on oath, and would bring witnesses to prove, that two of them were hatched in the autumn of last year, and, more especially, that the cock was hatched on the 2nd of September, 1854. The spurs and state of moult strongly corroborated his assertions, in the judgment of several conversant in the breeding of Dorkings. This might have been the case, unknown to the exhibitor; and several gentlemen present expected and would have rejoiced at any satisfactory explanation. But their surprise and regret were excited, and, perhaps, their faith shaken, by the exhibitor and the committee refusing investigation. One would have thought that Mr. Davies, after the accusation, would thankfully have challenged inquiry, and that the committee, for the sake of the Society, would readily have concurred with such desire. For the charge involved the Society, inasmuch as they had been made the instrument of the *accused* dishonesty; and the committee, by refusing inquiry, go far towards making themselves a party to the transaction. Until some measures are adopted to give satisfaction on this matter, in some

measure re-assuring exhibitors, as to a point at present much doubted—that *merit* is to be the criterion by which prizes are to be awarded—*gentlemen* will cease to send their birds to exhibitions.—AN ADVOCATE FOR "FAIRPLAY."

It may be right to add, for the information of the exhibitor of the cock in question, that it was reported in the Anerley Gardens, that the same bird was exhibited at the Carlisle (Royal Agricultural) Show, and there disqualified on account of his age.

N.B.—We have a communication from Mr. Wells, Secretary of the Anerley Show. It will appear next week.—F.D. C. G.

NORTHAMPTONSHIRE AGRICULTURAL SOCIETY'S POULTRY SHOW.

WE published last week our notes of this Show, and are now enabled to give the list of prizes:—

Class 1.—DORKING COCK AND TWO HENS.—First, Rev. F. Thursby, Abington Rectory. Second, Rev. F. Thursby, Abington Rectory. Commended.—Rev. Sir G. Robinson.

Class 2.—DORKING COCKEREL AND TWO PULLETS.—First, Rev. F. Thursby. Second, Dr. Prichard, Abington Abbey. Third, Rev. F. Thursby. Fourth, Mr. Longland, Grendon. Highly Commended.—Lady Isham. Commended.—Earl Spencer.

Class 3.—DORKING COCKEREL AND ONE PULLET.—First, Rev. F. Thursby. Second, Mr. Longland. Highly Commended.—Lady Isham.

Class 4.—DORKING COCK.—First, Rev. F. Thursby. Second, Lady Isham.

Class 5.—COCHIN-CHINA COCK AND TWO HENS.—First, Lady Isham, Lamport Hall. Second, Mr. Longland.

Class 6.—COCHIN-CHINA COCKEREL AND TWO PULLETS.—First, Mr. Longland. Second, Rev. F. Thursby. Third, Mr. Longland. Fourth, Mr. Longland.

Class 7.—GAME COCK AND TWO HENS.—First, Mr. Sheffield, Geddington. Second, Mr. T. Freestone, Great Harrowden. Third, J. F. Edmonds, Esq., Gullsborough.

Class 8.—PENCILLED HAMBURGH COCK AND TWO HENS.—First, Rev. R. H. Burdett, Bagbroke.

Class 9.—ANY OTHER DISTINCT BREED, COCK AND TWO HENS.—First, Rev. F. Thursby. (Brahma Pootra.) Second, Lady Isham. (Spanish.)

Class 10.—CROSS BRED FOWLS.—First, Mr. Longland. Second, Rev. G. P. Stopford.

Class 11.—AYLESBURY DUCKS.—First, Dr. Prichard.

Class 12.—DRAKE AND TWO DUCKS, ANY OTHER BREED.—First, Mr. John Beasley, Chapel Brampton. Second, Mr. Biggs.

Class 13.—TURKEY COCK AND TWO HENS.—First, Mr. Sheffield. Second, Mr. John Beasley.

THIRSK POULTRY SOCIETY'S EXHIBITION.

(COMMUNICATED.)

THIS Exhibition took place on Wednesday the 3rd inst. The show of birds was excellent. The prize birds in the *Spanish* classes were of extraordinary merit. Sixteen pens of *coloured Dorkings* were exhibited, and contained amongst them some really good birds. All the *Game* fowls were excellent; but still, there is a want of care in exhibitors matching the colour of the legs. The *Hamburgh* classes were well represented. In the *Poland* classes there was but little competition; but the birds exhibited were of such merit that the owners were fully entitled to their honours, the prize birds being universally admired.

We present a general list of prizes below.—The Judges were Mr. Braddock, York, and Mr. Benson, Darlington.

SPANISH.—Cock and two Hens.—First and second, to Mr. M. Ridgway, Dewsbury. *Chicken*.—Cockerel and two Pullets.—First, Mr. John Beaumont, New-road, Dewsbury. Second, Jas. Dixon, Esq., North Park, Horton, Bradford.

COLOURED DORKINGS.—Cock and two Hens.—First, Mr. Wm. Benn, Whitby. Second, Rev. Geo. Hustler, Appleton, Tadcaster. *Chicken*.—Cockerel and two Pullets.—First, Mrs. Pulleine, Crakehall, Bedale. Second, Chas. Mc Cartney Swarbrick, Esq., Thirsk. Highly Commended.—Mark Barrowby, Esq. Chas. W. C. Swarbrick, Esq. There was no entry in the class for *White Dorkings*.

COCHIN-CHINA (Cinnamon and Buff).—Cock and two Hens.—First, E. D. Swarbrick, Esq., Thirsk. Second, Rev. Geo. Hustler. *Chicken*.—Cockerel and two Pullets.—First, T. H. Barker, Esq., Hovingham. Second, Rev. Geo. Hustler. Mr. Barker was highly commended in this class, and Mr. E. D. Swarbrick was commended.

COCHIN-CHINA (Brown and Partridge-feathered).—Cock and two Hens.—First and second, Mr. John Bell, Thirsk. *Chicken*.—Cockerel and two Pullets.—First and second, Mr. John Bell.

COCHIN-CHINA (White).—Cock and two Hens.—First, Mr. Wm. Dawson, Hopton, Mirfield. Second, Mr. Edwin Ash, Old Malton. Mr. Henry Beldon, Eccleshill Moor, Bradford, was highly commended, and Mr. Alfred Hawxwell, of Thirsk, was commended. In the class for Chicken there was no entry.

GAME (Black-breasted and other Reds).—Cock and two Hens.—First, Mr. J. Watson, Chain Lane, Knaresbro'. Second, Mr. C. Holt, Northallerton.

GAME (White and Piles).—Cock and two Hens.—There was only a second prize awarded in this class to Mr. John Stainthorpe, of Carlton Miniott.

GAME (Duckwings and other Greys and Blues).—Cock and two Hens.—Second, A. D. Lacy, Esq., Hall House, Knayton, Thirsk.

GAME (Black).—Second, Mr. M. Ridgway, Dewsbury.

GAME (Any variety).—Cockerel and two Pullets.—First, Mr. Wm. Gill. Second, Mr. John Watson. White commendation, Mr. John Craven, Wakefield. Highly Commended.—Miss Tutin, Northallerton.

HAMBURGH (Golden-spangled).—Cock and two Hens.—First, Mr. James Dixon. *Chicken.*—Cockerel and two Pullets.—First, Mr. James Dixon.

HAMBURGH (Silver-spangled).—Cock and two Hens.—First, Henry Tetley, Esq. *Chicken.*—Cockerel and two Pullets.—First, Mr. Henry Beldon. Highly Commended.—John Hutton, jun., Esq.; and a commendation to Mr. James Dixon.

HAMBURGH (Golden-pencilled).—Cock and two Hens.—First, Edwd. Pease, jun., Esq. *Chicken.*—First, Mr. William Horner.

HAMBURGH (Silver-pencilled).—Cock and two Hens.—Mr. James Dixon. *Chicken.*—Mr. James Dixon.

POLANDS (Golden).—Cock and two Hens.—Mr. James Dixon. *Chicken.*—Mr. James Dixon.

POLANDS (Silver).—Cock and two Hens.—First, Mr. Ridgway. *Chicken.*—Cockerel and two Pullets.—Mr. James Dixon.

POLANDS (Black with White Crests).—There was no entry either in this class or the Chicken class.

CLASS FOR ANY OTHER DISTINCT BREED.—Cock and two Hens.—First, for Brahma Pootras, Mr. James Dixon. Second, Sultan Fowls, or Serai Taook, Mr. Wm. Dawson. Third, White Polands, Mr. James Dixon.

BANTAMS (Laced).—Cock and two Hens.—First, Mr. R. C. Titterton. Second, Mr. James Dixon.

BANTAMS (Any other variety).—Cock and two Hens of any age.—First, Mr. John Nicholson, Lowther-street, Groves, York. Second, Mr. James Dixon.

GESE.—Gander and two Geese.—First, Mrs. Wooler, Ingleby, Berwick, Yarm. Second, Mr. Hattersley, Abel Grange, Thirsk. Commended.—Mr. John Stainthorpe.

DUCKS (Aylesbury).—Drake and two Ducks.—First, Mr. Robt. Thorpe Field, Thirsk. Second, Miss Morton, Leake Hall, Thirsk. Highly Commended.—A. D. Lacy, Esq., and Mr. John Rhodes, Villaplace, Thirsk. Commended.—Mr. Lacy, Edwd. Pease, jun., Esq., and Miss Swarbreck.

DUCKS (Rouen).—Drake and two Ducks.—First, Mr. James Dixon. Second, Edwd. Pease.

DUCKS (Any other variety).—Drake and two Ducks.—First, Mr. James Dixon, for White Call. Second, Miss Swarbreck, Black East Indian.

TURKEY.—Cock and one Hen.—First, Lady Payne Gallwey. Second, Lady Frankland Russell.

GUINEA FOWLS.—Cock and one Hen.—First, Mr. John Stainthorpe. No competition.

PIGEONS.—First, Mr. John Clarke, Sowerby, Thirsk, for six Croppers. Second, Mr. R. C. Titterton, Yellow Turbits, Blue Fan Tails, Silver Bald Pates—one pair each.

DRESSED GESE.—First, Mrs. Morton, Leake Hall. Second, Mrs. Fryer, Kirby Wiske, Thirsk. Third, Mrs. Hattersley, Abel Grange, Thirsk; and the remainder were all commended,—namely, Mr. Peter Ascough, Knayton; F. Wailes, Esq., Huthwaite; Mrs. Wooler; Mr. R. Frank Breckenbrough, Catterick; Miss Hattersley.

BRIDGNORTH POULTRY EXHIBITION.

WE have frequently directed the attention of committees of Poultry shows to the inexpediency (where it can possibly be avoided) of holding such meetings out of doors. We can, too, scarcely call to mind a single instance, in our somewhat extended experience, where the dangers ever attendant on so doing were more forcibly illustrated than at the Bridgnorth exhibition, which took place on Thursday the 4th instant. About three o'clock in the afternoon, when the greater portion of the company were assembled in the Poultry tent, enjoying the opportunity thus afforded them of viewing Poultry from many of the best yards in the kingdom, the heavens became suddenly darkened, and, from hailstones of unusual size dropping sparingly around them,

the visitors hurriedly congregated within the tent, until it was impossible more could be admitted.

The parties who were thus compelled to remain outside suffered most severely; for at this moment the rain commenced falling in torrents, whilst the almost continuous flashes of lightning added much to the annoyance of those thus exposed. The heavy peals of thunder reverberated from the Castle hills, and many were the remarks that met our ears, expressive of regret that the desire of sight-seeing had led the speakers to abandon the comforts of their own firesides. Considerable numbers of persons, thus disagreeably drenched through the whole of their clothing, were compelled to give up all further thoughts of attending the public dinner to be held in the Town Hall, at four in the afternoon; and, upon the partial abatement of the storm, numbers, drippingly wet, were to be seen endeavouring to make the most speedy homeward route possible, to avoid the ill-consequences sometimes ensuing from like misadventures. To the committee, in this particular instance, no blame whatever can with justice be attached; the tent was more than sufficiently capacious for the Poultry exhibited, and the avenues between the competing pens, under any but unusual circumstances, all that could be reasonably desired. It was, therefore, entirely owing to the undue accession of numbers, from the peculiar circumstances above narrated, that the insufficiency of space (in case of sudden exigencies) became so distressingly apparent; and also proved to demonstration what must inevitably have been the result to every individual present, had not so extensive a covering been close at hand. We will not add more to what has been already stated, than the expression of our opinion, that no step taken by a Poultry committee can possibly prove itself more all-important than the taking of every reasonable precaution to provide suitable accommodation, in case of stress of weather, both as respects the visitors themselves, and also the (in many cases, really valuable) Poultry that may be committed to their care.

The Poultry were, all of them, exhibited in the same open-work wicker baskets that were used on the like occasion last season. With some extra stock (not included in the catalogue), the number of pens slightly exceeded one hundred. It must be borne in mind, also, that no trifling drawback to the success of such an exhibition, in this locality, arises from the impossibility of forwarding the contending specimens to Bridgnorth, without incurring a tedious journey of either eleven or thirteen miles by omnibus, from the Sheffield or Wolverhampton railway station. The Poultry exhibited was, on the whole, tolerably good, many of the *Hamburgs* being unusually excellent; the *Game* classes were also very good. The *Bantams* (more especially the *Sebrights*) were superior to those of late exhibited. The *Cochin Fowls* were sadly deteriorated, indeed, the want of characteristics here manifest, and which are always so especially striking in this variety, when well-bred, made one of the universal topics of comment among the amateurs present. This is rendered more remarkable, from the fact that only three years since the neighbourhood was proverbial for most excellent strains of this variety.

The *Dorking* class was numerous and superior; not one indifferent pen competed, and the condition of many of the *Dorkings* far outvied what we are accustomed to meet with at such trials for prize-taking; indeed, not a few of the simply "commended" pens, looked, at first sight, "very promising as winners," until contrasted with birds that only two years back would have caused unbounded astonishment to parties interested in such matters, and secured immediate purchasers at prices far beyond those at which they were now offered. The sales, however, proved exceedingly limited. The *Turkeys* and *Geese*, exhibited by the Countess of Chesterfield, and which took first prizes in their respective classes, were exceedingly fine birds, and caused much public admiration.

The present exhibition of Poultry was instituted some few years since, in lieu of the annual races that had hitherto taken place at Bridgnorth. We are informed it is exceedingly well supported, the contributions to the Race Fund being almost invariably "turned over" by subscribers to the funds of this society. The prizes were, on this occasion, satisfactorily awarded by Mr. Edward Hewitt, of Spark Brook, Birmingham, whose fulfilment of the same

office, last year, was unavoidably prevented by sudden indisposition the day previous to the exhibition.

COCHIN-CHINA (Buff or Cinnamon).—2. First, Mr. Thomas Hincks, Pennfields, near Wolverhampton. Second prize withheld.

COCHIN-CHINA (White).—7. First, Mr. Alfred Peters, Newbridge, Wolverhampton. 6. Second, Mr. Alfred Peters, Newbridge, Wolverhampton.

COCHIN-CHINA (Black).—10. First, Mr. Edward W. Hazelwood, Bridgnorth. Second prize, no competitors.

DORKINGS.—15. First, Mr. J. E. Wilson, Clifton Cottage, Claverley, near Bridgnorth. 19. Second, Mr. Henry Smith, Sutton Maddock, near Shiffnal. Highly Commended.—21. The Countess of Chesterfield, Bretby Hall, Burton-on-Trent. 22. The Hon. and Rev. Orlando W. W. Forester, Brosley Rectory. Commended.—16. Mr. J. E. Wilson, Clifton Cottage, Claverley, near Bridgnorth. 17. Mr. J. E. Wilson, Clifton Cottage, Claverley, near Bridgnorth. 20. The Countess of Chesterfield, Bretby Hall, Burton-on-Trent. (The whole class excellent.)

GAME.—24. First, Mr. Josiah B. Chune, Coalbrookdale. 23. Second, Mr. Thomas William Jones, Wellington. (Black Game.) Highly Commended.—25. Mr. Josiah B. Chune, Coalbrookdale. Commended.—27. Mr. Thomas William Jones, Wellington. (Duckwinged Greys.) 28. Mr. Thomas William Jones, Wellington. (Black Game.)

HAMBURGHES (Golden-pencilled).—29. First, Mr. Josiah B. Chune, Coalbrookdale. 30. Second, Mr. George Pritchard, Broseley.

HAMBURGHES (Golden-spangled).—33. First, Mr. J. Bamforth, Holmfirth, near Huddersfield. 32. Second, Mr. J. Bamforth, Holmfirth, near Huddersfield.

HAMBURGHES (Silver-pencilled).—36. First, Mr. Edward Archer, Malvern. 37. Second, Mr. Edward Archer, Malvern.

HAMBURGHES (Silver-spangled).—43. First, Mr. Josiah B. Chune, Coalbrookdale. 42. Second, Mr. Josiah B. Chune, Coalbrookdale.

POLANDS (Black, with White Crests).—48. First, Mr. J. Bamforth, Holmfirth, near Huddersfield. 49. Second, Mr. C. E. McMichael, Bridgnorth.

POLANDS (Golden-spangled).—53. First, Mr. S. T. Smith, Park Lane, Madeley. 54. Second, Mr. E. W. Haslewood, Bridgnorth.

POLANDS (Silver-spangled).—56. First, Mr. S. T. Smith, Park Lane, Madeley. 58. Second, Mr. Edward W. Haslewood, Bridgnorth.

SPANISH.—61. First, Mr. E. Simons, Birmingham. 60. Second, Mr. Edward Simons, Birmingham.

BANTAMS.—62. First, Messrs. Peters and Wildman, 101, High-street, Birmingham. (Silver-laced.) 66. Second, Mr. Thomas Hincks, Penn Fields, near Wolverhampton. (Gold-laced.)

ANY OTHER VARIETY.—70. First, Mr. E. W. Haslewood, Bridgnorth. (White Polands.) 89. Second, Mr. John Hopkins, Higford, near Shiffnal. (Brahma Poetra.)

TURKEYS.—76. First, The Countess of Chesterfield, Bretby Hall, near Burton-on-Trent. 74. Second, Mrs. Ellison, Oldbury Lodge, near Bridgnorth.

GESE.—79. First, The Countess of Chesterfield, Bretby Hall, near Birmingham. 77. Second, Mr. E. B. Reece, Harpswood, near Bridgnorth.

DUCKS (Aylesbury).—81. First, Messrs. Peters and Wildman, 101, High-street, Birmingham. 82. Second, Mr. Henry Smith, Sutton Maddock, near Shiffnal.

DUCKS (Rouen).—88. First, Mr. Edward W. Haslewood, Bridgnorth. 87. Second, Mr. Edward W. Haslewood, Bridgnorth.

DUCKS (Any other variety).—89. Second, Messrs. Peters and Wildman, 101, High-street, Birmingham. (White Peruvian or Musk.) No first prize awarded.

COCHIN-CHINA FOWLS IN A TOWN.

It is now twelvemonths since I commenced keeping poultry of the Cochin-China breed, and during that time have had many conflicting arguments with friends and neighbours respecting the merits and demerits of our domesticated fowls. I live in the centre of a large manufacturing town, in what some folks term a yard, where I enjoy the privilege of a piece of ground fourteen feet square, which I have enclosed in the shape of a walk and storm house (and an occasional run of say 100 feet square, night and morning, for one hour). I have managed to keep, through the season, upon an average, twenty-five birds of all ages. As far as eating, laying, and hatching, I think I have no reason to complain (thanks to the many suggestions taken from your valuable journals); but, with all my care, I cannot keep the birds clean; at least, as bright in plumage as most of our birds shown at exhibitions. My present stock consists of the light Buffs.

I shall feel greatly obliged if you, or any of your readers, will inform me the best variety to keep in my present limited space, so that I may be enabled to compete with my present fortunate neighbours.—A CONSTANT READER.

[If your situation is such that you cannot keep the plumage of the Buffs unsoiled, we should recommend you to part with them, and let their successors be the Partridge-coloured variety. We shall be glad to hear from any one who has been similarly situated as our correspondent.]

BIRMINGHAM SHOW.

I WISH to give a hint, through your columns, to the Committee of the Birmingham Poultry Show, which, if carried out, would, I am sure, give great satisfaction to exhibitors residing at a distance from Birmingham. You are aware that it is some time after the show before settlements can be made with exhibitors for the birds which have changed hands; and if a printed form (with the number of the pen), stating that such pens were sold, were posted on the Friday evening, there would be no anxiety at the non-arrival of the birds at home. Few exhibitors from a distance, I presume, stay after the first day (Tuesday), and many pens may be sold after that time; therefore, there must be some uneasiness as to whether they have really been sold, or have been taken by rail in a wrong direction.—ALPHA.

HARDINESS OF THE TURTLE DOVE.

"W." inquires, "Is the common migratory Turtle Dove, *Columba turtur*, sufficiently hardy to endure our winters without any great difficulty?" I have great pleasure in answering him in the affirmative, having kept several through the winter in common wire-fronted pens open to the weather. The only disease I ever had among them was one single case of ulcerated feet. If rendered tame, they may be trusted with their liberty. I have seen several instances, besides my own, where birds brought up from the nest have enjoyed perfect liberty; but if not confined at the migratory season they then decamp. My last attempt was with three pairs, one, two, and three years old, all raised from the nest. I put them in a pigeon loft, and when I thought them sufficiently accustomed to the place, let them out. At first they all went away, but returned; the old pair, however, drove the others away. They then built in the pigeon-loft, laid, sat, and reared their young, who, with the old ones, and a stranger that joined them from the woods, came regularly to be fed. They were quite tame, fed with the Pigeons, or among the fowls; would also enter the greenhouse, where I keep my small birds, and peck up the seed they threw over; or, if hungry, would follow me about the yard. Nevertheless, although the old hen had been three and the cock two winters in confinement, and the young ones were almost as familiar as their parents, they all left me at the autumnal migration, and have never returned. Their place is now occupied by some Collard Turtles, *Turtur Risorius*, the common cage Dove, which, contrary to expectation, I find perfectly domesticated. They enjoy full liberty, breed freely, and endured the cold of last winter, without any other protection than that afforded by an open pen, boarded at the top, and placed in a corner sheltered from the cold winds. They flew about in all weather, and in the most severe time eat snow instead of drinking water.—B. P. BRENT.

PIGEONS AT THE ANERLY SHOW.

IN reading over my notes on the Anerly Show, No. 363, page 435, I perceive an error with regard to the remarks on *Trumpeters* and *Barbs*, occasioned, most probably, by the omission of a line in the manuscript while setting up the type; as nearly as I can recollect, it should be,—“Of Trumpeters there were some very nicely mottled birds; but I noticed three birds shown in this class without the distinctive turn over the beak, which specimens were, consequently, worthless. Of Barbs there were a few very good headed birds; but others were thin headed and mostly too short in the body.”

I quite agree with Mr. Jones Percival, that more than one judge ought to be appointed for the Pigeons. I do not, however, coincide with him respecting the judge's decision

in awarding the silver cup to Mr. J. M. Eaton; for it must be remembered, that that gentleman's four pens *all* contained high fancy birds, Carriers, Pouters, Almonds, and Black-mottled Tumblers, which none of the others did. The birds, too, were of good quality, and however good such birds as Fantails, Turbits, Barbs, Trumpeters, Jacobins, or Owls may be, they cannot be expected to compete with success against high fancy birds, any more than a thorough-bred Shetland pony would against a high-bred racehorse.—B. P. BRENT.

BIRMINGHAM COLUMBARIAN SOCIETY'S SHOW.

This took place on the 11th and 12th instant, when the following prizes were awarded by the judge, T. J. Cottle, Esq., of Cheltenham:—

POUTERS.—2. First, Mr. G. C. Adkins. 4. Second, Mr. C. W. Burningham. Commended.—6. Mr. H. J. Devonport.

POUTER, COCK OR HEN.—18. First, Mr. C. Siddons.

CARRIERS.—25. First, Mr. C. Siddons. 24. Second, Mr. C. Siddons. Highly Commended.—21. Mr. C. W. Burningham.

CARRIER, COCK OR HEN.—29. First, Mr. C. Siddons. Commended.—28. Mr. E. Crathorne.

ALMONDS.—33. First, Mr. G. C. Adkins. 39. Second, Mr. E. A. Lingard. Highly Commended.—37. Mr. John Percivall. Commended.—35. Mr. Jones Percivall.

BALDHEADS.—40. First, Mr. G. C. Adkins. 41. Second, Mr. C. R. Titterton. Highly Commended.—44. Mr. John Percivall.

BEARDS.—No Competition.—46. Second, Mr. Jones Percivall.

MOTTLED TUMBLERS.—49. First, Mr. Jones Percivall. 47. Second, Mr. John Percivall.

TRUMPETERS.—53. First, Mr. C. R. Titterton. 57. Second, Mr. H. J. Davenport. Highly Commended.—52. Mr. G. C. Adkins. 55. Mr. H. Child, jun. Commended.—58. Mr. John Percivall (Cock). 61. Mr. J. B. Mapplebeck. A very good class.

FANTAILS.—67. First, Mr. G. C. Adkins. 75. Second, M. W. H. Simpson. Commended.—68. Mr. C. R. Titterton.

OWLS.—90. First, Mr. Jones Percivall. 91. Mr. E. Cotterill.

NUNS.—93. First, Mr. G. C. Adkins. 94. Second, Mr. G. C. Adkins. Commended.—95. Mr. F. A. Lavender.

JACOBINES.—104. First, Mr. F. A. Lavender. 117. Second, Mr. A. Pressdee. Highly Commended.—107. Mr. John Heape.

TURBITS.—122. First, Mr. John Percivall. 128. Second, Mr. A. Pressdee. Highly Commended.—124. J. M. Eaton. 129. Mr. C. R. Titterton.

BARBES.—138. First, Mr. S. C. Baker. 131. Second, Mr. G. C. Adkins. Very Highly Commended.—132. Mr. Jno. Percivall.

ARCHANGELS.—143. First, Mr. Jones Percivall. 144. Second, Mr. E. Cotterill. Commended.—140. Mr. G. C. Adkins.

RUNTS.—147. First, Mr. S. C. Baker. 148. Second, Mr. S. C. Baker.

DRAGOONS.—155. First, Mr. John Percivall. 151. Second, Mr. E. Crathorne.

MAGPIES.—158. First, Mr. Henry Child, jun.

SPOTS.—No Competition. Commended.—163. Mr. E. A. Lingard.

HELMETS.—165. First, Mr. F. A. Lavender.

PORCELAINS.—171. First, Mr. E. A. Lingard.

PHILLBACKS.—174. First, Mr. S. C. Baker.

ANY OTHER VARIETY.—177. First, Mr. W. H. Simpson, Yellow Brunswickers. 181. First, Mr. S. C. Baker, Black Swallows.

THE HOUSEHOLD.

(We shall be much obliged by any of our readers sending us approved receipts in cookery, hints for household management, or any other domestic utilities, for insertion in this department of our columns.)

TO MAKE GOOD APPLE JELLY.—Take apples of the best quality and good flavour (not sweet), cut them in quarters, or slices, and stew them till soft; then strain out the juice, being very careful not to let any of the pulp go through the strainer. Boil it to the consistency of molasses, then weigh it and add as many pounds of crushed sugar, stirring it constantly till the sugar is dissolved. Add one ounce of extract of lemon to every twenty pounds of jelly, and when

cold, set it away in close jars. It will keep good for years.—Those who have not made jelly in this way will do well to try it; they will find it superior to currant jelly.—*Michigan Farmer.*

PRESERVED PUMPKIN is very good if made as follows:—Cut the flesh into thin slices, place them on wicker-work or wire drainer, and put them into a slow oven till all the watery part is dried up. In the mean time, boil some bruised ginger in water, with a little Cayenne, so that the liquor is strong of the ginger; whilst hot, put in the slices of Pumpkin; let them remain for two days, take them out, and dry them as before. Now boil up the liquor, to every pint add one pound of loaf sugar, give it a boil, remove the scum; when hot, add the Pumpkin, put it into jars, tie it over with bladder, and keep it in a dry place. One pound of sugar to one pound of Pumpkin. These slices may be cut into diamonds, hearts, or any other shape, and dipped into caramel, and thus make a pleasing ornament for the dessert. They may likewise be coloured green and red, by colouring the water in which the ginger is boiled, and afterwards the syrup. The Pumpkin, for this purpose, should not be over-ripe.

PLUM FOOL.—Such is the name I give to the following recipe, from its being made similar to gooseberry fool:—Take one quart of ripe plums, boil them in some water; when quite soft, pass them through a coarse sieve; then add to the pulp half a pound of sugar; boil it, and pour it, when hot, into one quart of cream; serve it up cold, in custard-glasses, either for dessert or with the pastry. The stones broken, and the kernels removed, chopped up, and sprinkled over the top is an improvement.—G. W.

LONDON MARKETS.—OCTOBER 15TH.

COVENT GARDEN.

The market continues to be well supplied with every description of home produce, and, in addition to the Foreign Fruit, we have now some excellent samples of *Dutch Hambro' Grapes*, and also good *White oves* from Lisbon. *Pears* consist of *Marie Louise*, *Gansel's Bergamot*, *Louise Bonne*, *Beurre d'Amanlis*, and a few of *Williams' Bon Chretien* are still brought from late situations.

FRUIT.

Apples, kitchen, per bushel	1s. 6d. to 2s. 6d.
„ dessert	4s. „ 6s.
Pears	4s. „ 8s.
Peaches, per doz.	3s. „ 6s.
Nectarines, per doz.	2s. „ 4s.
Plums, per sieve	4s. „ 8s.
Pine-apples, per lb.	6s. „ 8s.
Grapes, per lb.	1s. 6d. „ 6s.
Melons, each	2s. „ 6s.
Figs	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. „ 10s.
Lemons	6s. „ 12s.
Almonds, per lb.	2s. „ —
Nuts, Filberts, per 100 lbs.	50s. „ 60s.
„ Cobs, ditto	60s. „ 70s.
„ Barcelona, per bushel	20s. „ 22s.
Nuts, Brazil, per bushel	12s. „ 14s.
Walnuts, per 1000	9s. „ 12s.
Chestnuts	—

VEGETABLES.

Cabbages, per doz.	9d. to 1s.
„ Red, per doz.	2s. „ 4s.
Cauliflowers, per doz.	2s. „ 4s.
Brocoli	1s. „ 2s.
Savoy	—
Greens, per dozen bunches	2s. „ 3s.
Spinach, per sieve	1s. „ 2s.
Beans	—
French Beans, per half sieve	1s. 6d. „ 2s. 6d.
Scarlet Runners	1s. 6d. „ 3s.

Peas, per bushel	3s. „ 5s.
Carrots, per bunch	4d. „ 6d.
Parsuips	—
Beet, per doz.	1s. „ 1s. 6d.
Potatoes, per cwt.	3s. „ 6s.
Turnips, per bunch	2d. „ 3d.
Onions, young, per bunch	1d. „ 2d.
Leeks, per bunch	2d. „ 3d.
Garlic, per lb.	6d. „ 8d.
Shallots, per lb.	4d. „ 6d.
Horseradish, per bundle	1s. 6d. „ 2s. 6d.
Lettuce, Cos, per score	6d. „ 1s.
„ Cabbage	6d. „ 8d.
Endive, per score	1s. „ 1s. 6d.
Celery, per bunch	8d. „ 1s.
Radishes, Turnip, per dozen bunches	1s. „ 1s. 6d.
Water Cresses, per dozen bunches	6d. „ 9d.
Small Salad, per punnet	2d. „ 3d.
Artichokes, each	3d. „ 6d.
Asparagus, per bundle	—
Sea-kale, per punnet	—
Rhubarb, per bundle	6d. „ 1s.
Cucumbers, each	3d. „ 8d.
Vegetable Marrow, per dozen	6d. „ 1s.
Tomatoes, per punnet	1s. „ 2s. 6d.
Mushrooms, per pottle	1s. 6d. „ 2s.

HERBS.

Basil, per bunch	6d. to 9d.
Marjoram, per bunch	6d. „ 9d.
Fennel, per bunch	2d. „ 3d.
Savory, per bunch	2d. „ 3d.
Thyme, per bunch	2d. „ 3d.
Parsley, per bunch	2d. „ 3d.
Mint, per bunch	4d. „ 6d.

GRAIN AND SEED.

FRIDAY, OCT. 12.—English Wheat fully as dear. Foreign has a good demand at Monday's currency. Malting Barley easier, but Grinding Barley fully as dear. Old Oats are taken at late rates, while New droop, particularly Black Irish.

WHEAT.

Kent and Essex, red,	
per qr.....	74s. to 84s.
Ditto, white	84s. „ 90s.
Norfolk and Suffolk..	76s. „ 78s.
Dantzic	86s. „ 92s.
Rostock	81s. „ 90s.
Odessa	73s. „ 76s.
American	83s. „ 85s.

BARLEY.

Malting	44s. to 45s.
Grinding and Distil-	
ling	34s. „ 36s.
Chevalier	36s. „ 38s.

OATS.

Scotch, feed	31s. to 32s.
English	26s. „ 27s.
Irish	25s. „ 28s.
Dutch Broo	29s. „ 30s.
Danish	25s. „ 29s.
Russian	26s. „ 29s.

BEANS.

Harrow	40s. to 42s.
Pigeon	42s. „ 43s.
Tick.....	40s. „ 41s.

PEAS.

Boiling, per qr.....	43s. to 46s.
Common.....	36s. „ 38s.
Grey.....	37s. „ 40s.
Maple.....	37s. „ 39s.

SEEDS.

Turnip, White, per	
bushel.....	—
Swede	—
Rape	84s. „ 86s.
Linseed, sowing, qr.	80s. „ 84s.
„ crushing ..	74s. „ 76s.
Clover, English, redwt	60s. „ 68s.
„ Foreign do.	52s. „ 57s.
„ White	68s. „ 73s.
Trefoil.....	28s. „ 32s.
Rye, per qr.....	52s. „ 54s.
Tares, winter.....	88s.
Canary.....	64s. „ 66s.
Hemp	54s. „ 57s.

Linseed Cake, per

ton.....	£11 to £12 10s.
Rape Cake ..	£6 10s. „ £6 15s.
Indian Corn	47s. „ 50s.

HOPS.

BOROUGH MARKET, FRIDAY, OCT. 12.—At the commencement of the week there was a good trade for all fine samples, but the market has not been quite so active the last day or two. The demand, however, continues steady, and prices are fully supported. Mid. and East Kent, 90s. 115s. to 130s.; Weald of Kents, 84s. 94s. to 105s.; Sussex, 86s. 90s. to 96s.; Country Farnhams and Farnhams, 95s. 105s. to 120s. Duty, £300,000.

HAY AND STRAW.

Clover, 1st cut per		Meadow Hay, new	95s. to 120s.
load	110s. to 140s.	Rowan	80s. „ 90s.
Clover, new	120s. „ 135s.	Straw, flail	30s. „ 36s.
Ditto, 2nd cut	90s. „ 140s.	Ditto, machine	28s. „ 30s.
Meadow Hay	90s. „ 130s.		

MEAT.

Beef, inferior, per		Mutton, prime	4s. 6d. to 4s. 10d.
8lbs.....	3s. 4d. to 3s. 8d.	Veal	3s. 10d. to 4s. 10d.
Do. middling.....	3s. 10d. to 4s.	Lamb	5s. 4d. to 5s. 10d.
Do. prime	4s. 2d. to 4s. 4d.	Pork, large.....	3s. 8d. to 4s.
Mutton, inferior	3s. 4d. to 3s. 8d.	Ditto, small	4s. to 4s. 6d.
Do. middling ..	3s. 10d. to 4s. 4d.		

POULTRY.

We have little change to note since last week. Both supply and demand are unusually small, but the latter is less than the former.

Large Fowls 4s. 6d. to 5s. 6s. each.	Partridges.. 1s. 6d. to 2s. 0d. each.
Smaller do. 3s. 6d. to 4s. „	Grouse 1s. 9d. to 2s. 6d. „
Chickens .. 2s. 3d. to 3s. 0d. „	Hares 3s. 0s. to 3s. 6d. „
Geese..... 6s. 0d. to 7s. 0d. „	Pigeons ... 8d. to 9d. „
Ducks 2s. 6d. to 3s. 3d. „	Rabbits .. 1s. 4d. to 1s. 5d. „
Pheasants... 3s. 0d. to 4s. „	Wild do..... 1s. to 1s. „

PROVISIONS.

BUTTER.—Cwt.

Dorset, fine	104s. to 108s.
Do. middling.....	90s. „ 96s.
Fresh, per doz. lbs.	12s. „ 13s.
Friesland	98s. „ 100s.
Kiel	94s. „ 98s.
Carlow	98s. „ 102s.
Waterford	98s. „ 102s.
Cork.....	98s. „ 102s.
Limerick.....	92s. „ 96s.
Sligo	—

BACON.—Cwt.

Wiltshire, dried ..	80s. to 84s.
Waterford	74s. „ 76s.

CHEESE.—Cwt.

Cheshire, fine	74s. to 90s.
Gloucestershire, dble.	70s. „ 76s.
Ditto, single	60s. „ 74s.
Somerset.....	70s. „ 76s.
Wilt, loaf.....	68s. „ 78s.
Ditto, double.....	72s. „ 78s.
Ditto, thin	54s. „ 64s.
Ditto, pines	72s. „ —
Berkeley, thin	62s. „ 66s.

HAMS.—Cwt.

York, new	80s. to 90s.
Westmoreland	76s. „ 86s.
Irish.....	74s. „ 84s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11d, the 4lb. loaf, but in other places the bakers are selling the best bread at 8d. the 4lb. loaf, while in the cheap neighbourhoods they profess to sell at 7½d.

WOOL.

Down Teds 1s. 2s. to 1s. 3d.	Kent fleeces .. 1s. 1d. „ 1s. 2d.
Ditto Teds and	Leicester fleeces... 1s. „ 1s. 1½d.
Ewes	Long, heavy do..... 11d. to 1s.
Half-bred Hog-	Combing skins .. 10½d. to 1s. 1d.
gets	Flannel wool... 1s. 1d. to 1s. 2½d.
Do. Wethers	Blanket wool

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia. 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

VINES (I. X. W.).—We do not know the *Abercarney*. The *Graumier de Cantal* is a variety cultivated at Metz, of which we have no knowledge; but it is probably synonymous with *Raisin rouge de Cantal*, which is a very strong grower, and produces a very large bunch from ten to twelve inches long. The berries are large, and of a dark blue colour; but the flavour is not sufficiently rich to make it worth growing in this country: it is only fit for wine. *Muscat Noir de Jura* is the same as the Black Frontignan. *Rasin de Calabre* we are unacquainted with, except by name only.

FERNS.—If Mr. John Cockcroft will write to Mr. J. Turner, Prestwich, near Manchester, he will probably obtain some desirable Ferns.

SEA-KALE (T. H. B.).—You need not cut it down. The leaves will die in the winter, and then a dressing of decayed dung and salt may be put on, and pointed in with a fork. *Wheat* for transplanting should be sown at the same time as that which is to be not transplanted.

PIT FOR CUCUMBERS (Tradesman).—Your plan will answer very well. There is no occasion for the air-chamber being so large, unless it is already made. You do not say what the bottom of your bed consists of. You should have air-holes in front as well as the back at F., and if you had openings from the path-way I. into the chamber near the bottom, you would rival Mr. Lane with Polmaising the circulation of your air. If this were done, we would advise openings for the outside air at the back rather than the front, and have the air-openings in front instead of the back, as at F. There is no necessity for bringing a return-pipe from the farther end of the tank. You may have the flow-pipe at one side at the end, and the return-pipe at the other side of the same end. A division up the middle, except at the extreme end, would be desirable.

GARDEN PLAN (Cherry).—No one whose judgment is worth having would give the plan for a garden they have never seen, and of the size of which they know nothing. In our 217th number there is a plan which may suit you.

NAMES OF FRUIT (Loccum).—No. 1, Baxter's Pearmaine. No. 2, a bad specimen, not known. Write to the Secretary of the British Pomological Society, 20, Bedford-street, Covent Garden, London, and he will make arrangements for having you elected a member of the Society. You had better submit your seedling Apple to that best of fruit authorities.

FLOWER GARDEN PLAN (Annie).—You have arranged the plants and colours in this plan most capably, both for the summer and for the winter crops; but we would hardly plant the Anemones in alternate circles with the White Narcissus in 7; we would put them in a broad ring between the Daisies and Narcissus; but try your own plan first. Much obliged for colouring the beds—we shall engrave your plan, and the name of the small yellow flower is *Ethiopia prostrata* alias *riparia*; it is quite hardy, for it stood last winter at the Crystal Palace, and no plant is easier to increase, either by dividing the roots in April, or from cuttings at any time. A little earth thrown over the lower stems in summer would cause them to root, like layers, to a wonderful extent.

DUNG PITS FOR CUCUMBERS, &c.—Shropshire, A new Subscriber, and W. W. will have their inquiries attended to next week.

NAMES OF PLANTS (H. M. K.).—Yours is *Vallota purpurea*. (M. A. G.).—Your plant is the common Hemp. You must have overlooked the flowering, for it is now in seed.

NAMES OF FRUIT (Town Close).—No. 1. A small specimen of the *Blenheim Pippin*. No. 2. The *Beauty of Kent*. No. 3. We cannot make out this from your drawing. We shall be happy to hear from you at all times. You should become a member of the Pomological Society. For ten shillings annually you would have their Transactions, might attend their monthly meetings, and send what fruit you liked for judgment. (E. H.).—(A.) *Beurre' Diel*. (B.) *Williams' Bonchretien*. Those in brown paper are *Autumn Bergamot*, and those in yellow paper, *Beurre' Kirke*.

ENGLISH TOBACCO (Goddess).—All the leaves will answer for fumigating purposes. It is not quite so strong as foreign tobacco.

KITCHEN-GARDEN PLAN (A Constant Reader).—It first began to appear in our No. 339.

CONCRETE BORDERS (A. Macintosh).—We cannot obtain the information you ask for.

NAMES OF FERNS (T. Joy).—The larger-growing kind found about Ifley is *Polypodium vulgare* (common *Polypody*). The smaller kind, found in Magdalen College grove, is the *Asplenium trichomanes*, or the common Spleenwort.

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WEEKLY CALENDAR.

D M	D W	OCTOBER 23—29, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
23	Tu	Autumnal Dagger Moth.	29.400—29.350	60—28	W.	—	39 a 6	50 a 4	3 44	12	15 31	296
24	W	Death's-head Moth.	29.444—29.093	56—33	S.W.	52	41	48	5 12	13	15 39	297
25	Th	Connecting Umber Moth.	29.219—29.974	50—29	N.E.	44	43	46	rises.	☺	15 46	298
26	F	Feathered Thorn Moth.	29.793—29.523	54—24	W.	—	44	44	5 a 12	15	15 53	299
27	S	Streak Moth.	30.253—30.175	53—31	S.W.	—	46	42	5 38	16	15 59	300
28	SUN	21 SUNDAY AFTER TRINITY. St.	30.287—30.175	53—26	S.	—	48	40	6 12	17	16 4	301
29	M	[SIM. AND ST. JUDE.]	30.163—30.098	56—34	S.W.	—	50	38	6 57	18	16 9	302

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 55.1°, and 38.7°, respectively. The greatest heat, 68°, occurred on the 26th, in 1831; and the lowest cold, 23°, on the 28th, in 1836. During the period 91 days were fine, and on 105 rain fell.

We have received this pithy note :—

“ You ask—‘ What is to become of the Horticultural Society of London ?’ Let me put another question—What *ought* to become of it ?” We reply—Let no effort be spared that may be likely to save it. In the first place, let the difficulties be met manfully, and in a business-like way, by the Fellows subscribing enough to pay off the Society’s debts. If there are fifteen hundred Fellows, it will require eight pounds from each to set the Society free ; and then let them re-organise the whole.

It will be a disgrace to England if a Society of such noble purpose, and of such powers to effect vast good, is allowed to be extinguished, and all connected with it may be assured that the love of gardening is too generally diffused among all classes for a national central Horticultural Society not to be effectually supported, if the management and the objects patronised by it are not mistaken.

It is worse than useless to have such a Society’s funds expended upon shows, the costly prizes at which can only be contested for by exhibitors of vast resources, and to see which shows none but the wealthy can afford to obtain access. The returns at the Crystal Palace on the shilling days, compared with the returns on those days when the entrance is five times the amount, is a fact in point which needs no enforcement. Less costly prizes, but more spectators, would better satisfy not only nurserymen but private gardeners.

It will be seen that we are not opposed to a National Horticultural Society having exhibitions ; but we are totally opposed to having them only for the wealthy, and still more are we opposed to the folly of looking to such exhibitions as a chief source of income—exhibitions which a rain-cloud can frustrate ; and how often it has frustrated, every Society within the British isles can tell from its treasurer’s reports.

There is one, and only one, solid basis on which such a National Society could be established, and that basis is a very numerous body of subscribers ; and it is equally certain that these can be obtained only by having the annual payment very moderate. A subscription of one guinea should be the very utmost. At that amount of annual payment we think five thousand subscribers might be obtained.

Nor would we rely on such individual subscriptions solely. We would have every member of every local Horticultural Society to be entitled to be enrolled among

the Fellows of the National Horticultural Society, if that local Society paid five guineas annually to the National Society’s funds.

Moderation in the amount of the annual subscription is not the only requirement for such a National Society’s stability. Its objects must be also popular—calculated to benefit and to meet the wants of the many. Its officers must be ready and capable to impart information in answer to questions sent to them. Its garden must afford a graft, or a plant, or a few seeds of any new or choice importation, not in quantities, or of such things as would be able to be met by the nursery or the seed-trade, but of such things as that trade could not, or it would not be worth their while to, supply.

A Society so founded, and having “ Utility with Beauty ” as its text-motto, *would* succeed, if its Secretary were a man of courtesy. If he domineered over the under officials ; if he insulted exhibitors ; if he answered inquiries as if he thought them foolish and impertinent—the Society could not prosper. Officials so treated do not combine heartily for a Society’s well being. Exhibitors and inquirers so treated will not again run the risk of similar insults, and will deter others from giving the Society their support.

With all the above absolute requisites for the success of a National Horticultural Society, that at present gasping for existence is totally at variance. It is constituted only for the wealthy ; it has depended for income on its exhibitions ; it does not study the requirements of its subscribers ; and its officials and exhibitors have been singularly and notoriously treated uncourteously by one to whom the chief management of the Society has been left. For years, we have foreseen that ultimately such a course must terminate in the Society’s ruin. Nor has our foresight been dumb. For years past we have spoken out fearlessly what we foresaw. No greater satisfaction can result to us, even at this eleventh hour, if we have suggested one hint that will aid to rescue from extinction a Society so capable of good.

EARLY FORCING OF FRUITS.

On what depends success in early forcing ? This is a knotty question. We will scarcely stay to ask whether the heating apparatus is in order ; whether the houses are washed or painted ; whether the stages or other apparatus are in good repair ; but will take for granted that each and all of these are as they should be. We have graver questions still to see into.

The subjects may be Vines, Peaches, Nectarines, or any of those dainty fruits which go to make up a modern dessert. I do not, of course, include Pines, as they do not belong, strictly, to the forcing department.

The success of early forcing, then, depends chiefly on a healthy and fruitful tree, one that has gone through its due degrees of growth, maturity, and rest, and that has a good volume of root beneath, situated in a proper medium. These, beyond all question, are the chief points for consideration.

There may be more ways than one of attaining these points; and, in truth, many such ways may meet in one centre. It is admitted by all, that well-ripened wood is one necessary condition; but wood to be well-ripened must have been freely developed, possessed a freedom from insects, been matured from a healthful root, and received the other accessories to a fruitful habit which are known to most gardeners. So much for the conditions requisite as to the ripening and perfecting the wood; the development of the buds is altogether another affair.

But, then, in Vineries, Peach-houses, &c., there is something to say about the root; for it will not do to force a branch into activity without a lively root. Granted; the branch may advance, may produce pretty good fruit; but, in all such cases, the constitution of the tree has to pay the penalty.

Many a gardener, however, is sorely puzzled when in such a fix. He has Vines planted nearly a score years since; perhaps more. Who made the border, it does not signify here to relate; but all is not right beneath; and to hope for better things, by high-spun notions of pruning, is about as wise a proceeding as to look for a good tune from a cracked fiddle by merely rosinning the bow.

Well, a gardener, on a moderate scale, has a couple of Vineries of this kind; neither first-rate; and it so happens that the family he serves cannot afford to lose a crop of Grapes for a couple of years,—the time required, under ordinary circumstances, to get up young Vines. The consequence, then, is, that he pokes on, from year to year, with indifferent Grapes; not for want of knowledge it may be, but because he dare not cause the afore-said privation. This is a source of much annoyance to many a worthy character; and I name it here, to show that failures of this kind are not always chargeable on ignorance, or apathy; but result from a kind of expediency, before which even princes succumb in the hour of need.

But to come back to my starting point more closely. I would here observe on the condition of outside borders as matters of grave consideration. We all know that many early-forced things have outside roots, perhaps inside as well, and that, as a matter of common sense, the roots should be in an equal condition as to temperature.

Now, it is well-known that many good gardeners, as a proper antecedent to a course of early forcing, think it expedient to create an artificial warmth by means of fermenting materials. That the principle is correct, up to a certain point, there can be no doubt; but even without such warmth from fermentation much may be done.

A good sound thatching with clean straw is of eminent service, especially if the thatch could be laid on rather thickly, say nine inches deep; but, in fact, one portion of this might be dry litter of any kind, taking care that the thatch is laid on so as to keep out rain. It is now about twenty years, or more, since I recommended the use of a tarpaulin to cover the litter of borders, and I much doubt if anything can be more effective as to the end in view. I believe, that if nine inches in depth of dry litter were put on the border of the early Vinery at the end of August, and covered by a tarpaulin, there

would be no urgent necessity for powerful fermenting materials. I say at the end of August, but I do not think it would be worth while to be particular to a week or two, sooner or later; the object should be to catch the border when tolerably dry, and to secure it from the inroads of more wet.

It is of no use philosophising in this affair about sheltering out the air and such like. I believe it is understood that some of our best gardeners have even concreted the surface of their borders, and that it has succeeded admirably.

I need scarcely urge, here, that where borders are soured, or hold too much water, draining, even as in agricultural matters, should be the foundation-stone to all real progress.

The dressing of the wood of Vines, Peaches, &c., is another of the most important steps in early forcing. We can never depend on security from insects without this precaution. Indeed with it, and all appliances, it takes all our energies in these days, when that obscure army, the fungi—from the Field Mildew up to that pest of the Vine, the *Oidium Tuckeri*—threaten to destroy or overrun, at no distant period, our fields and our Vineyards. I am not aware that any mixtures have been devised better than soft soap, sulphur, and clay water; these, with the addition of a little lime, to show where the dressing has missed, are materials that will extirpate most of the enemies of our fruit-trees.

I have alluded to these proceedings merely as hints to the young gardener and the amateur; all the above points are familiar enough to professionals.

Where the borders are entirely inside the houses another practice must be had recourse to. Most good gardeners keep such borders tolerably dry from the moment the fruits ripen, and there can be no doubt as to the propriety of such practice. About a fortnight prior to what is termed the commencement of forcing, however, the inside borders, if dry, should have a thorough soaking with water, which may be applied at a temperature of 90°. This may seem high to some, but let it be considered, that by the time it reaches the volume of the roots it will not be more than 80°. Borders of this kind generally contain fissures when in a dry condition, and the best practice, as I think, is to water thoroughly with clean water first, and on the following day to follow with some good liquid-manure. Sometimes it is necessary to apply more surface-soil; this, however, should be done with caution, and chopped turf in a half-decayed state, is, perhaps, the best thing to dress with. The surface of inside borders is apt to become powdery, and to lose its organic matter; I should advise that this be swept off before watering, and, of course, before surface-dressing.

R. ERRINGTON.

KEW GARDENS.

(Continued from page 36.)

UNFORTUNATELY, I am as dull among *Ferns* as in florists' flowers, and I shall never attempt to teach by hearsay, else I would rattle up such a story about this hardy Fern-house as would induce you to give up your Pelargoniums, and all your goniums, and do little else in future but buy and collect Ferns, and grow them as they do at Kew; and yet I have seen Fern hay-ricks made, one cut of which would take more, in bulk, than all the Ferns at Kew put together would make. Here, again, a wide departure is made from the old pot; not quite so deep, and much wider in the mouth, seems to answer better for Ferns, at least, for very many of them.

You never saw a cheaper way, or a better way of making shelves, or stages for Ferns, than they have here; and were it only for the pleasure of doing so much, for a

mere nothing, at last, it would be worth while to put up a glass lean-to at the back of a south wall, or the north side of a house or mansion, on purpose to grow Ferns and Polypods, and such things as *Lapageria rosea*, *Cana-vallia bonariensis*, and many others of the pea-flowering tribes, which they say look so splendidly in their native places; but, owing to the sun and red spider, never have been yet subdued into good cultivation. For instance, how many *Crotalaria*s can we grow? How many *Desmodium*s and *Indigofera*s? And yet all these come over in every parcel of seeds from travellers as of the very best, to say nothing of *Hedysarums*, *Sutherlandias*, and *Olianthus*, all of which never stand a blink of sun, if they are the least cramped at the roots.

Well, the said stages are thus made:—The first rise along the path is three feet high, and the face of it is rough stones, but burnt bricks, clinkers, flints, shells, or anything that would not rot or crumble to pieces would do, and the rougher they were built the better; all manner of rubbish would do to fill in behind this rough wall, and the stones are bedded in this, leaving large spaces “in and out” between them for running Ferns to creep over. This is the first shelf, and is two feet wide across the top, the two feet is the “all rubbish,” with some clean ashes on the top, but fine gravel would do. From the back of the two feet is another rise for the second shelf. This rise is only eighteen inches in rough stones, and the flat top may be thirty inches in sand, gravel, or ashes; then a third rise of eighteen or twenty inches in rough stones also, and the top is three or four feet, backed by the back wall against which the house stands. Mr. Fish wrote about such another stage as this, and it must be evident that a bank of earth, mixed with “all manner” of drainage stuff, thrown up against a wall, and thus faced into four or five broad stages, would last as long as the brick wall itself, would drain every drop from the pots, would be always cool and damp, or warm and moist, according to the temperature within, and be the best place in the world for most plants; and the expense of this stage, which would last for ever, need not be one-half of that for a common greenhouse stage; the only disadvantage is, that slovenly people could not make muck pies under this kind of stage.

The largest Fern in this house is *Dicksonia antarctica*, a tree Fern, with a trunk four feet high, and ten wide-spreading leaves at the top, begging your pardon, for tree Ferns must have leaves like other trees, and there are several other plants of this tree, but not so big; but when a man talks about Fern leaves it is time to drop the subject, until the world is either more wise or less pedantic; meantime, say frond, or fronds, that is all.

ORCHIDS.—They have never been very successful in the cultivation of airplants at Kew, probably on account of the constantly opening of the doors, and letting in cold draughts. The Horticultural Society managed much better; they locked the doors on show days, and on all days, I believe, where rare things were in store. The Orchids here are now in a different house, and look middling.

LARGE CONSERVATORY.—The greatest progress in England, or in all Europe, took place in this large house since 1852. At that time the plants existed, and that was all. What with the want of room in the old stoves, which spoiled half the collection, and the new experience to be learned from the capacity of this ugly building, the plants in it at this time three years were looking as dry, and husky, and as wretched-looking as ever the old school could turn out from the dominions of the double-flue and tan beds; but now the whole of the plants are in the utmost health, and are as clean and free from insects as any collection I ever saw. The only regret is, that there are just three times as many plants in the house as ought to be in it, and all the

good gardening in the world can never counteract the bad effects of a crowded plant-house, plant-pit, frame, open border, and all, as I can testify from my own borders at present, and from my back experience.

Along the paths, and around some of the beds or shelves, both here and at the Crystal Palace, are the prettiest edgings of all that have been yet attempted in hothouses. The plant which forms these edgings is *Cyanotis vittata*, and the literal translation of the two names is *Blue ribbon*, whatever “Nemophila” and the readers of the Iliad may think of it. The *Cyanotis* is a stove or half-stove Mexican trailing plant, which was called *Tradescantia zebrina*, by the trade, before it got into the hands of science to name it right. Verily, the trade have much to answer for on account of their predilection for fine names of their own making, to catch a penny, and then be the first to halloo out murder, on the proper naming of such a new plant.

A large tree of *Eugenia malaccensis*, or the Malay Apple-tree, was in flower at the time, and it may be said to be the handsomest flower of any plant in the order (Myrtleblooms); and as it is very seldom in the power of any European gardener to see it, I shall tell what it is like. To look at it from a distance, it would appear to be a purplish-crimson ball, as big as a moderate orange, resting on, and all round, the old parts, or three-year-old parts, of the branches where there were no leaves. There were great quantities of these crimson balls crowded on the branches. The ball is made of an endless number of stamens, and the quantity is the produce of three, four, or five flowers, or say a cluster of flowers; these clusters come on very stout spurs from the old wood, and look like so many Orange flowers in the bud; and when all the flowers on a spur open, their united stamens form the handsomest ball you ever saw.

Calliandra Tweedii was also in bloom, and extremely handsome; it is a far better habited plant than either of the older ones, which went by the name of *Inga*. It makes a good bush-specimen, and yields a great number of purple-crimson flowers, all made up of the stamens, like those of Malay Rose-apple. *Aristolochia ornithocephala* was climbing over head, and was full of those dark, curiously-shaped flowers, which look as much like a coalheaver's hat as anything in this world.

At the south end is a splendid collection of those half Palm-like plants, called *Cycads*, after our old *Cycas revoluta*, *Zamia*s, which are so numerous in the eastern parts of the colony of the Cape of Good Hope. The Caffer bread of the same colony, *Encephalartos* of sorts, with species of *Macrozamia* and *Ceratozamia*, the *Dion* of Mexico, the Elephant's-foot plants of the Cape, and *Dioscorea macrostachia*, which has a root-stock very much like the Elephant's-foot plant, but the leaves are much larger.

All these curious plants, or most of them, it may be observed, would live in a greenhouse just as well, if not better; the keeping of them in a stove, at present, is but another edition of the foolishness of attempting to keep half-hardy bulbs from the same parts in heat, till we had driven them out of cultivation; but the tenacity of life in the rough stems of these half-hardy *Cycads* seems proof against heat and hothouses.

The flower-gardening here, and wherever I visit, is the point to which I pay the most attention, and whatever my descriptions may be, whether favourable or otherwise, whether good, bad, or indifferent, everybody who reads them, and who knows less of the subject than the writer, ought to be instructed by the perusal, and if he is not so, the fault is in the writer. For a writer, to be highly gratified with what he sees, or to have his feelings touched in any other way by the sight, is not of the smallest use or interest to the reader, unless he is made more knowing by what he reads.

Now, although I may not be always able to give such

life pictures as "Our Own Correspondent," at Paris, Mr. P. F. Keir, I shall endeavour to give you such a notion of how they did the flower-garden department at Kew this season, that you might do the very like next year, if you have the means. But, first of all, let me say that this season has been too dry for Kew Gardens; that the soil is not good for Roses; that the gravel is decidedly bad, and some of it not fit to walk on, without strong soles, being quite loose and pebbly on the terraces and round the large conservatory. How far they have improved on their system of bedding you shall see presently. They made a very bold start at first, when they began to flower-garden here, a few years back, and I gave them all the help I could in kinds of plants. The Crystal Palace people were far more cautious; they did not introduce half the kinds of plants for their first planting as they did at Kew. The fewer kinds of plants and colours, the less chance for mistakes and bad taste.

The beds are new, and on clay, at the Crystal Palace; while at Kew they are old and on a touchy bottom; therefore, the degree of luxuriance at the Crystal Palace must not be looked for at Kew, without renewing one-half of the soil in all the flower-beds once in two years.

D. BEATON.

(To be continued.)

DUNG-HEATED BRICK PITS, &c., FOR CUCUMBERS, &c.

1. "A CORRESPONDENT, 'Shropshire,' would be obliged for a description and plan of the best known brick-pit for Cucumbers and Melons, to be heated by dung only. He has had practice only with the pigeon-holed wall, four-and-a-half inches thick outside, and the thickness of a brick on edge inside, to form a flue. He proposes building walls two feet high from the bottom, nine inches thick, and then commence his four-and-a-half-inch pigeon-holed wall, and his brick-on-edge solid wall inside for a flue, to within two feet or eighteen inches of the top, and finish that part with a solid four-inch wall to carry the frame. Proposes the pit to have one-foot nine-inches slope, and to grow upon a trellis."

With every desire to oblige, the task of giving the plans and specifications of the *best known* pit for such a purpose, is one which it would require very strong nerves, and a vast amount of enthusiasm to undertake. A young man might very readily do so; one more experienced, would feel that more depended upon the attention of the cultivator, than upon any one specified plan. I have seen Cucumbers grown successfully under a great variety of circumstances, and have been successful with pits and frames constructed in many ways, and have found that, provided a bottom-heat of from 75° to 80°, was secured, with a top-heat at night, from 65° to 70°, with a rise of 10° to 15° from sunshine, that there was but little difference as to the minutiae of modes employed. For such a purpose as that contemplated, a pit six feet wide, from four-and-a-half to five feet high at back, and from three to three-and-a-half feet high in front, rather better than the half sunk under the ground-level, well drained, and linings from two-and-a-half to three feet wide, would answer well. Instead of building the nine-inch wall two feet high, I would begin to pigeon-hole at one foot, and would carry up the flue within a foot of the top, so as to command atmospheric as well as bottom-heat.

To secure the bottom heat right to the centre of the bed, I would either carry flues across from side to side, on the Mc Phail's system, having these flues every second light; or I would have a chamber below the soil, hollow, or as hollow as possible, by means of brickbats, stones, &c., piled as open as possible. I prefer these stones to an open chamber, as when once heated they retain it longer, and the heat is more equal. The roots

are also more exposed to an equality of temperature, than by using cross flues, as the soil placed between them is generally hottest at the sides of the flue. Whatever the depth of such a pit, such a stone-chamber, finished off with smaller stones, or rough gravel on the surface, may rise to within twenty-seven or thirty inches of the glass, or thirty-six inches at farthest, which will give plenty of room for a foot or fifteen inches of soil, and top room for the leaves. I prefer a trellis for Cucumbers, especially when grown in small houses; but in such a pit as this, it will generally be least trouble to train the plants along the surface of the soil. If the ground cannot be made dry, most of the pit should stand above the surface. When sunk, less of the walls are exposed, and the linings may be concealed by wooden coverings, or nearly so. If the flue rises nearly to the top of the wall, there will be no necessity for having higher linings. To keep the linings low, however, and nearly out of sight, the dung must be partly made, and somewhat sweetened before using it, as fresh dung would not give enough of heat. As none of the steam could get inside, provided the linings were high and large, there would be no necessity to work the dung much before using it.

I have previously mentioned several more simple modes, and yet quite as successful. A pit was built four-and-a-half feet at back, and three-and-a-half feet in front, sunk half the height; walls the width of a brick, the lower half pigeon-holed, but buttressed, as it were, by a cross division of a four-inch wall, every two and three lights; the inside was filled with rubble, a little higher than the pigeon-holes; on this the soil was placed, making it firm over the rubble, so that no steam passed through the earth. Bottom-heat was thus communicated through the pigeon-holes, and top-heat was secured by keeping the lining well up against the wall.

Another pit was formed in a similar way, of a single inch in width, laid solid, and without pigeon-holes; and, though it required a little more dung and time to heat the interior at first, it was quite as easily kept up afterwards. I once had such a pit all above the ground-level, and it did equally well, though it required more dung, and was rather more difficult to cover up.

Another pit, I once had, was built much in the same way; only, instead of being all brick, large slates were let into the wall, opposite every light, and from their thinness they were quickly and easily heated; but the slates, then, were much more expensive than the bricks.

All these modes go upon the principle of avoiding the chances of rank gases and steams from the dung finding their way to the plants. Presuppose the use of plenty of strong fermenting matter always at hand, and the loss of a good portion of the heat from the manure escaping into the atmosphere,—every one at all conversant with the matter knows that one barrow-load of sweet fermenting matter, placed directly beneath the roots of a plant, will communicate more heat to it than six or ten times the quantity placed round the solid walls of a pit in which it is growing. Hence, when the manure is to be made the very most of, one of these modes has generally been adopted:—

1stly. The old hotbed system with frames, which, when dung alone was used, has seldom been surpassed; the success greatly depending upon the thorough working and sweetening, without too much decomposing the dung, and the building it in such a manner, with the assistance of faggots, &c., in the centre, so that enough of air would be admitted to carry on a slow decomposing process; and neither so much, nor so little, as would arrest decomposition altogether, and so prevent the constant giving off of heat, as the result of the gradual decay.

2ndly. There was the making such a bed inside of a brick pit, furnished with pigeon-holed walls, to renew the heat by linings when it became cool. There was no danger

of steam, provided the dung inside, and the soil above it, were higher than the pigeon-holes, and the soil was kept firm and free from cracks round the sides of the walls. This is a very economical mode, as respects manure; and if the bed is properly built, it long retains the heat. When built, however close and firm, or towards the end of the season, when it has lost its heat, the linings have little influence on the centre of the bed, if at all close. To remedy this, layers of faggots may be placed amongst the dung when building the bed, or the lower part may consist of an open chamber of stones. I have found either of these last modes quite effectual in such circumstances.

3rdly. A third mode for making the most of the heat of the manure, was building the walls on piers, or arches, some three-and-a-half to four feet apart, and from two to two-and-a-half feet in height in front, to two-and-a-half or three or more feet behind. A solid bottom was made to the bed,—either brick, slate, or stout wooden slabs, placed rather open; and conducting matter, such as clinkers, brickbats, &c., grouted in between the slabs. Under such circumstances, the manure was placed directly beneath the bed, or partly beneath, and partly at the side as a lining; the latter mode being necessary, if the place for the dung was placed beneath the ground-level, to permit of easy access. The dung, leaves, &c., were thus turned and worked as found necessary,—the spent removed, and fresh added. The same mode is often resorted to, by elevating a common frame on a floor, supported by stout posts, and answers very well. A combination of this dung-chamber, and an enclosed stone-chamber, was sometime ago brought under our notice by—

2. "A New Subscriber;" to whom only a short reply was given, and a longer promised. We must now say something more in detail. His pit, intended chiefly for Pines, would answer equally well for Cucumbers, Melons, &c.; and there can be no doubt of success,—provided, if in these days of hot-water he resolves to work perseveringly the dung and leaves at his command.

From the drawing obligingly given, it would appear that the proposed pit is about fourteen feet in length, and divided into three compartments,—two lesser ones at the ends, and a larger in the middle; the former intended for succession, and the latter for fruiting Pine-plants. The pit is sunk about two feet below the ground-line. From raising of the ground, the back wall is sunk nearly double that depth. The width of the pit is about six feet; height of the back wall about six feet; front wall about four feet. The floor of the bed slopes much the same as the glass, being about three-and-a-half feet from the base-line at the back, and nearly two feet in front. There is a back and front lining to the pit, the four-inch outside wall of which rises respectively rather higher than the floor of the bed. The outside walls of the pit are supported on arches, set on piers three-and-a-half feet apart, and seemingly fourteen inches by nine. Any young gardener, by making a few lines with his pen, can see all this at once, if no engravings are given. The linings, and the open chamber, would thus furnish the means of heating, and I presume that the linings would be shut up with neatly-fitting boards, so that when the dung sinks as it decomposes, the heat would still strike against the floor of the bed. This mode, as we have seen, is common enough. The peculiarity in the "New Subscriber's" system is, that the dung does not get to the middle of the chamber, because eighteen inches from the base of the arches, back and front, two four-inch pigeon-holed walls are carried longitudinally the whole length of the pit, and as high as to reach the flooring. This, it will be seen, encloses a space the whole length of the pit, and directly in its centre, rather more than two feet in width, and this has been partly filled with stones. I would

say, in passing, that I should prefer filling it loosely near to the top, and never allowing the pigeon-holes to be filled up with decayed manure. Now, it will be seen that these two longitudinal inside pigeon-holed walls increase the first expense; but, that got over, there can be no question but that they are an advantage, particularly in three ways. First, they act as a middle support to the flooring, whatever that may be; secondly, a man standing in or on the lining, to turn the whole of the manure, has only to reach eighteen inches below the arches instead of three feet; and thirdly, the stones will not only retain the heat longer, but their openings will cause a kind of circulation in the heated air. A cheap centre for such a chambered pit might be made of a pyramidal mound of clinkers, stones, &c., firmly fastened together, and made smooth at the top to support the flooring, by running it into a mass there with a little concrete. Our correspondent proposes an air-flue to allow heat to enter the atmosphere of the house. A very simple mode of doing this is by setting long house slates on the flooring and sloping against the side walls, the lower end being from six to nine inches from the wall, and the upper end three or four, kept in their place by a brick-bat fixed to keep them from cracking, and shut in with a narrow piece of slate, or tiles placed lengthwise, and furnished with a round hole, with a plug in the centre of each light, to stop, or open, at pleasure. Without something of this kind of flue, such a pit offers few advantages over the common frame. The plan, altogether, is ingenious, and will, no doubt, answer well, and may be managed with great neatness, as no manure need be seen, unless during the time when turning and additions are necessary. On the whole, however, where manure is in great plenty, and neatness no object, and economy in the first construction a matter of much moment, I would just as soon prefer, for Cucumbers, a five or six feet wide pit, built of one brick wide solid walls, and secure bottom and top-heat by keeping the linings pretty well up to the wall plates. When I had much to do with such close-walled pits, I used to work my dung there for objects requiring it more sweet and decomposed.

The same correspondent gives a section of a low, wide pit, or house, twelve feet, inside measure, width of path at back about three feet, and the rest divided equally into a chamber of dung next the path, and a chamber of stones for the other half of the width in front. A floor is placed for the bed of soil, and a narrow opening along the back is to let up the heated air from the floor. In this case, as well as in that flue lately alluded to with the slates, it is well to have a kind of second flooring, or a space of six or nine inches of open rubble placed over the floor, before earth, tan, &c., are put on, as then these air-flues that heat the atmosphere of the house will get heat from the whole of the floor of the pit, instead of a small portion; and whenever bottom-heat is more wanted than top-heat, nothing more is required than placing the plugs in.

In such a house, our correspondent proposes growing Carrots, Potatoes, French Beans in pots, &c., in spring; Cucumbers and Melons in summer, with Vines overhead. By planting out Melons about the end of April, he may do very well, as the Vines will be getting on by then; but much of the success will depend on the management of the dung. I presume the house is short, and that there are openings at the ends to get the dung in and out, as it would be rather precarious for growing crops to take it in by the passage, though even pretty well sweetened.

3.—"W. W." wishes to have as many early Cucumbers as possible, from eight to ten inches long; wants to know the sorts best adapted; whether sowing in the middle of February and keeping the plants in pots to the end of March, will, with good treatment, secure fruit

by the end of May; asks whether a trellis, or resting on the soil is most suitable; wishes to know if, in a pit ten feet by six, loop holes round the bottom are wanted for the admission of air; and greatly desiderates a list of Cucumbers, with a faithful description as to habit, size of fruit, and foliage, as he has had five distinct kinds of Cucumbers out of one of the packets, at least.

I hope this will meet the eye of some subscriber who is more conversant with varieties of Cucumbers than I have lately been, so that any omission may be supplied. The *Sion House* and *Sion House Improved*, or *Kenyon's*, would yield a large crop. It is a smooth, greenish Cucumber, without any spines. Many families use it all the year round, but I have always had a prejudice against it after July, and used to think it rather bitter in August and September. After that it is the best Cucumber for the winter. Then comes the *Southgate*, a good old sort of the kind wanted; then, perhaps, better, *Cuthill's Black Spined*, *Weeden's Black Spined*, *Allen's Victory of Suffolk*. All these will produce abundance of fruit about one foot in length, and the leaves are generally moderate in size. Abundance of produce will farther be secured by either growing the plants in large pots, or giving them a rather limited supply of soil.

A good idea of this will be found in the "Notes on Whittlebury Gardens." No man knew better how to get the greatest number of Cucumbers from a plant than the father of Mr. Ayres. Of white-spined sorts, the best for your purpose will be *Snow's Cucumber*, the *Manchester*, and *Hunter's Prolific*. These all bear plentifully, have a beautiful bloom, and are in perfection for eating when a foot long, though they will often grow to eighteen and twenty-four inches.

I do not clearly understand what you mean by *loop-holes*. Other matters will be found referred to already. I can easily imagine that you may have had several varieties from one packet of seed; and yet, the seed-grower and the seed-merchant be perfectly blameless. The sorts I mentioned first, to which may be added the *Stockwood Ridge*, are more likely to be true than any others, because they are grown in large quantities, and fair-sized fruit seed freely. Even they, however, lose caste at times. I sowed some *Stockwood Ridge* not long ago, and they came Gherkins. The friend I had seeds from had Gherkins, that year, himself, though he washed the seed from a good fruit with his own hands. Gherkins for pickling had been growing in the neighbourhood. Large kinds, such as the famous *John Bull*, and even such beauties as *Snow's* and *Hunter's Prolific*, do not produce seed freely from *fine* grown specimens like gun barrels; in fact, you might allow a hundred of such to ripen, and not get a seed from the whole. Unless, in these long, straight growing kinds, you get a fruit with a knob at its point, it is almost vain to extract seed. When the gardener sees such a thing on a good specimen, he ties a string round some inches behind the swelling, to increase its size. From such a knob, the seed is likely to be true, if cross impregnation is avoided. In a fine, new, long sort, it is difficult to get these knobby fellows early enough to mature the seeds; and, therefore, on the principle that luxuriance and fruitfulness are opposed to each other, the person who wishes for a quantity of seed allows the plants to overbear themselves. The check thus given causes many fruit to come with the desired knobbed deformities at the point. In pursuance of the desired object, all are allowed to remain, and a good quantity of seed is secured for the market. Is it likely that the merits of the variety can all be secured from such misshapen and distorted fruit? Merely allow that other Cucumbers, *Ridge*, or otherwise, are growing at no great distance, and the reasons are palpable why the seed does not come true to its variety, —and why that kind of variety becomes deteriorated in time, unless extra care is taken to prevent it.

I find I cannot refer to other inquiries about Cucumber-pits and houses to be heated with hot-water, &c.; but full information will be obtained in late volumes on almost every subject alluded to. I will think the matter over.
R. FISH.

FAWSLEY PARK.

THE SEAT OF SIR CHARLES KNIGHTLEY, BART.

(Continued from page 22.)

I HAVE now arrived at the glass structures. These are placed at the upper side of the garden, and consist of two Vineries; a large greenhouse, seventy feet long and sixteen feet wide; and two exotic stove houses. They are arranged thus:—the greenhouse and the two Vineries are in the centre, and are lean-to houses. The two stoves are at each end, and project forwards. These two are span-roofed. This arrangement has a very pretty effect, giving an air of finished appearance. In front of these, Mr. Brown has formed a broad terrace gravelled walk, from which you have a good view of the houses, and the whole garden, and the wooded dingle below.

It is in contemplation to erect a Peach-house on the Trentham plan, and that will be a useful improvement; for here, as elsewhere, the crop of this delicious, melting fruit is always uncertain, and seldom perfect.

In the two stove-houses, which have been erected since Mr. Brown took the command, I found some well-grown specimen plants. The internal plan of the houses is worthy of notice. In the centre is a pit filled with tan, then a walk, and then a slate platform next the glass over the hot-water pipes. The bark-bed gives moisture and bottom-heat, always useful adjuncts to plants growing. This arrangement is simple, yet efficacious, as the healthy appearance of the plants indicated.

The following plants were in flower in the stoves:—*Allamanda Schottii*, *cathartica*, *aubletia*, and *nerifolia*. The three first trained to a cylindrical upright trellis, four feet, which they densely covered. *Hoya carnosa* and *Stephanotis florabunda*, in as fresh flower as we see them in June or July. *Dipladenias*, several fine plants of the best species. *Passiflora Princeps* and *Middletonia*; the first full of scarlet racemes of flowers; one other well covered with deep blue. *Ixora coccinea*, three feet high, with many heads of scarlet flowers. *Medinilla speciosa*. This was a truly noble plant, with upwards of fifty racemes of its pretty pink flowers, or equally pretty fruit. *Clerodendron splendens*, with many scarlet blooms. *Cyrtoceras reflexa*, a good plant, with ten heads of its Hoya-like blossoms. *Rondeletia speciosa major*, very large heads of scarlet flower. *Aphelandra cristata* ditto. A good plant of the new *Aphelandra Leopoldii*, with its golden spike and beautifully-marked leaves. *Cissus discolor*, remarkable for its richly-hued leaves, was trained as a dense pyramid. Another plant of it was plunged in the bark close to the edge of the pit, the shoots brought over and trained so as to entirely cover the wall of the pit. This had a good effect.

In the greenhouse, I noticed a fine collection of Fuschias well-bloomed, and some good plants of *Pleroma elegans* showing plenty of bloom-buds. The old *Begonia Evansiana* is made use of here as a summer plant for the greenhouse. One plant was three feet high, and as much through, and was covered with its pretty pink flower. Truly, there are few species of this useful genus that surpass it when grown in such dense masses. The collection of greenhouse plants is rather deficient, but will be increased when Mr. Brown has time to attend to it. He is a young, enterprising man, and, I think, from what I have described above, the readers will agree with me, has renovated the gardening at Fawsley very much, and grows his plants in the best style.

Passing through the garden at the further side, I was introduced to a noble walk of great length, called the Laurel walk, from having a bank of Laurels on each side of it kept closely cut in. In the same line is a double row of Elms, with a walk between of considerable length. Their straight stems, and, far above head, interlacing branches, had quite a cathedral appearance. This walk leads to a dell, or dingle, in which stands many good timber-trees, that have either been pruned for the purpose, with upright stems, or have formerly stood so thick as to give that effect. The underwood has been cut away, and so the dingle has an open appearance. The stream of water that runs in the bottom supplies the lakes in front of the mansion. Well-kept walks traverse the entire length of this dingle; one in the bottom and the other on the top of the opposite bank. This spot might be made exceedingly interesting, by planting clumps of American plants, and damming up the water to form cascades, the murmuring fall of which would soothe the troubled mind, and give a pleasant feeling to the happy one. At the end of this dingle, I came to the broad expanse of the water, which, as the sun was shining brightly, had a most glorious effect. You then cross a bridge at the head of the lake, and mount a hill to the garden entrance again. I had heard that Sir Charles is passionately fond of, and very successful in, breeding cattle, and, therefore, I requested leave to inspect the stock. Finer cattle of the true Durham breed, I think, can scarcely exist. To the uninitiated, it may appear incredible when I state, that many of the bulls (of which I saw upwards of thirty) are valued at more than two hundred guineas each. There is a biennial sale here, which all the eminent breeders attend; and the desire to possess a breed from this stock is manifested by the eager bidding of such spirited gentlemen.

I am, however, reminded by my sheets of written paper that I am exceeding my allotted space considerably, and, therefore, must come to a conclusion. I can only say, that I spent a very pleasant day, and was unexpectedly most hospitably entertained by Sir Charles himself, who most kindly sent a carriage to convey me to Welton, near the Erith Station, the residence of one of the greatest amateurs in gardening, whose place and success in the art of hybridising would rather astonish even my good friend Mr. Beaton of hybridising notoriety. I shall take an early opportunity of telling what is doing in the gardening way at Welton.

T. APPLEBY.

WHAT INDUSTRY CAN DO.—At a meeting of the Agricultural Association of Villeneuve-sur-Lot (Lot-et-Garonne), a few days ago, the president, M. Fabre, gave a striking example of what may be done by intelligence and industry: A simple farm-labourer, named Foussat, having, by great economy, saved up 525*l.*, purchased, seven years ago, a piece of waste land of two hectares in extent (the hectare is about 2½ acres), in the village of St. Antoine. The earth was literally full of stones, but he diligently extracted them all; it also required draining, and he constructed drains by means of the smaller stones. With the larger stones he managed to build a house large enough for himself and family. He then brought soil and manure; and having enclosed his little property with a hedge, proceeded to plant vines and fruit-trees. These have prospered greatly, and now yield an annual revenue greater than the original cost of the land. The association granted this man the first premium.

NEW AND RARE PLANTS.

(Continued from page 7.)

MARCEZIA ANDICOLA.—A new plant, with pretty pink flowers; native of South America. It is one of the few stove shrubs that are naturally dwarf in habit.

MARSDENIA LUCIDA (Shining).—Native of the Himalayas. Leaves stout and shining. Flowers dark purple. Habit, a hardy climber. A desirable addition to our somewhat scanty list of hardy evergreen climbers.

OXYLOBIUM OSBORNI (Mr. Osborne's).—A very welcome addition to our New Holland plants. Leaves rather narrow. Flowers in corymbs, or rather in whorls near the ends of the shoots. Colour bright orange, and very showy. This will prove a good exhibition plant.

PINCKNEYA IONANTHA (Purple-calyxed).—A very desirable stove shrub of great beauty, from South America. Flowers rich violet-blue. Introduced to Europe by Mr. Linden, of Belgium.

PITTOSPORUM FLAVUM (Yellow).—The Pittosporums are all fine-foliaged plants, but generally small flowers. In this species the flowers are large individually, and are produced profusely at the end of the shoots, in large heads, in the manner of a *Laurustinus*. Colour a lively yellow. Native of the eastern coast of Australia, and will, probably, prove hardy south of London. It is a noble plant for a conservative wall, or a glass-covered passage, like that at the Crystal Palace.

PSAMMITIS PENDULIFLORA (Drooping-flowered).—This is a really handsome plant from Venezuela. It is a stove shrub in winter, but will thrive and flower better if placed out-of-doors, near a south wall, in summer. (I have caused many otherwise shy-flowering stove shrubs to bloom, by this method of exposing them to the full influence of the sun and air). Leaves oval, and dentated; flowers in whorls, and of a bright crimson colour, spotted and streaked with yellow and green.

RHEXIA GLANDULOSA (Glanded).—The Rhexias are a family of plants belonging to the Natural Order of Melastomaceæ, with fleeting blossoms, chiefly of a purple hue. *R. glandulosa* is a new species lately introduced from Guatemala, and, unlike its congeners, its bloom is more prolonged, rivalling in beauty the lovely *Pleroma elegans*. It is a soft-wooded, half-shrubby plant, with deeply-veined leaves, shining green on the upper surface, and bright red underneath. The stems are red also, square in form, and covered with glandulous hairs. The flowers are large, and of rich purple colour. If I am not very much mistaken, this will prove a very worthy plant; and as it is easily cultivated and increased freely by cuttings, it will soon be in every collection. At present, I believe, it is only in the Chiswick Gardens.

SABBATIA STELLARIS (Starry).—A greenhouse perennial herbaceous plant, from Virginia; flowered first, I believe, in the Royal Gardens at Frogmore. I saw it in flower there, and it is a truly beautiful plant. Flowers tubular, with a spreading border. Colour deep rose, with a yellow, distinct eye, produced at the end of the shoots. It was introduced seven years ago, but is yet very rare.

SCUTELLARIA VILLOSA (Hairy).—I saw this fine plant in flower at Kew this summer, and a fine species it is, and very remarkable. The leaves are large, and covered with whitish hairs. Flowers in spikes, and of a brilliant scarlet colour. It is a remarkable plant even among the very select. Habit dwarf and bushy. A desirable species. Native of Peru.

SCIADOCALYX WARSEWICSI (Warsewic's).—A very remarkable, robust, Gesneraceous plant, from the Isle of Santa Martha. It is now in flower in the Horticultural Society's Garden, at Chiswick. The plant is three feet high, with four or five stout stems. The flowers spring from the upper part of the stems from the axils of the leaves; they are of a pale scarlet colour, spotted with

orange. It is a large, soft-leaved, herbaceous plant, dying down after blooming. The circumstance of its blooming in autumn recommends it to general culture. It flowers when in a small state, and is a beautiful plant.

SELAGO DISTANS (Distant-flowered).—This is neither new nor rare, and is easily propagated; yet it is not so much grown as it deserves to be. I am induced to place it here for the sake of describing the beautiful plants I saw at Chiswick a few days ago. When I saw them at a distance, I really thought they were some kind of a small-leaved Fir-tree. Mr. Gordon manages them well. He trains young plants with a single stem, furnished all round with straight, horizontal shoots down to the rims of the pots. They then form handsome Cypress-like plants, and must be, when in flower, still more ornamental. As they flower in very early spring, they are then very neat ornaments in the greenhouse. I have seen the plant in various collections, but they, generally, were straggling, unsightly bushes; but at Chiswick, even when not in bloom, they are very handsome plants. Every cultivator that has a plant or two should adopt the pyramidal mode of training them. They will well reward him for his trouble.

T. APPLEBY.

(To be continued.)

GARDEN WALKS AND THEIR FORMATION.

It is generally admitted, that no feature in a garden gives more gratification than a good walk; for, both in appearance and in utility, a really good pathway is second to nothing the garden contains. Consequently, the amateur who wishes to excel in any portion of his garden produce must remember, that the value, or quality, of the articles in question is much enhanced by their being approached by a good, hard, smooth roadway, clean in all weathers. This, unfortunately, is not the case everywhere; the indifferent quality of the materials of which walks are often made, and, not unfrequently, the injudicious way in which they are used, tend much to render them uncomfortable to walk upon, as well as unsightly to look at. The article "Walks" seems to want as much reformation as many of the other matters on which the public, at the present time, have been told where abuses exist; and as our public gardens and promenades are all more or less attractive, in accordance with the good, or indifferent, thoroughfares which intersect them, the amateur will, probably, learn a little by seeing what is good, and rejecting what is not; unfortunately for him, one of the best reasons for the public gardens' walks being so good, is their being so much used, while his own, if it be a private place, can hardly be expected to be so well occupied. This refers to such walks where gravel and similar substances form the top covering, and the surface is to be formed of them when they become consolidated into a smooth state. Where this can be done, and the walk kept so, there needs no improvement; for the small stones forming the gravel, fixing themselves into the finer matter, become a sort of miniature pavement, more or less hard, as the materials used may be; and as each successive shower of rain tends to wash the tops of such small stones, the dirt, or finer particles will wash in between. This is all very well in damp weather, but when a dry season sets in, and the binding matter incapable of keeping the small stones in their places, the path then becomes as uncomfortable as anything well can be, for it is like walking on a bed of marbles. This is especially the case in some sea-port towns, where walks, or promenades, are formed of the shingle found on the sea-shore, which, as I have just

said, is all very well in wet weather, but is very bad in summer.

Now, though of late years a vast improvement on our public thoroughfares has been accomplished by asphaltting them, and the latest improvements that way leave little to wish for, save that it could be done at less expense, an item which may, no doubt, be considerably reduced, when practice has brought it to bear on the many purposes it may be applied to; but, in the mean time, the amateur of humble means, who has a considerable extent of garden walk to make, must adopt some less expensive system for all, except some portion near his premises, which his builder and he may consult upon; and, as walk-making materials cannot be imported far without great cost, we advise him to turn everything he has at home to the best account. Stone, in some shape or other, generally exists; or, where not, brick bats or other hard materials, as clinkers, the refuse of iron works, or anything that way, will do for the foundation of the walk, which need not exceed the depth of four or five inches in any case, neither ought it to be less, as worms are apt to work up through where too shallow; but it may be as deep as you like where there is material enough to fill it in with, which is often the case where buildings have been recently put up, and the waste matter lying about. A quantity of lime, or mortar rubbish, is useful, as likely to keep the worms out of the way; and where lime is very cheap, and the hard, pebbly stones of the sea-coast have to be used as a surface material, the best way would be, after forming the foundation, and making it as smooth as you can, to sift a quantity of the shingle so as to have the body of it as near one size as possible, say from a boy's marble to that of a walnut. Lime being pounded dry, and mixed with these stones and water, it might be laid on as quickly as possible, taking care so to lay it as not to have to disturb it afterwards; but before it is dry, scatter on the top some smaller gravel and sharp sand, which, sinking into the space left by the lime receding, will give the walk a more smooth and agreeable face. This is "concreting" walks, in the garden fashion; builder's concrete is somewhat different; but as this is much too tedious and expensive for the majority of walks, where much is to do, I would advise the bottom to be laid with such things as can be had, and the top formed as smooth as well can be, and well rolled, adding some substance at top that will form a smooth surface, firm and binding. In some instances, I have been obliged to use a sort of loamy matter, where the other things were all more or less sandy; but this must not be done too much, otherwise the porosity of the walk is destroyed, which it is imprudent to do, as it is better when all the rain which falls on a walk is allowed to percolate through it rather than run off, or stand on it (as I have seen some do) until it evaporates; therefore, it would not be prudent to add so much adhesive matter as would entirely prevent wet passing through, unless as in the case of concreting above, which can only be done in certain places; for, as we all know that rain-water must have an exit somewhere, and it had better be allowed to sink into and down through a walk than stand or run along its surface, as mischief enough is done when the latter is adopted, and heavy thunder showers occur. But supposing a tolerably hard surface to be formed, and also of the proper height for a walk to be, or very nearly so, the surfacing substance I propose to add will take up very little space indeed.

It is now some time since I recommended, in *THE COTTAGE GARDENER*, the use of half-decayed cockle shells, as the prettiest and cleanest substance for coating the surface of walks, and a more lengthened experience has confirmed me in that opinion, where they are to be had reasonably, and where the best gravel is scarce. Observe, I say the best gravel, which, I admit, shells may

be second to. But the great value of shells is their comfort for walking on, because they quickly become broken down to the size of coarse bran, and in that state form an easy, agreeable substance for the feet, are quite as clean in wet weather as in dry, and, on the whole, more firm after rain than at any other time, each shower also helps to wash them whiter; and though in places where there is a great deal of traffic they get ground down into a sort of grey dust, their appearance in that condition is not bad, and a few more scattered over the place again restores the colour. Another advantage in such a walk, is that weeds can be removed with less expense than in most others, for the walk can be hoed over without any detriment to it, which is not the case with gravel, which tears up, and rarely sets down again nicely; whereas, the Dutch hoe, in the hands of an ordinary labourer, will go over a great breadth of walks in a dry day, and a blunt-toothed rake, or switch broom, will level it in quickly; the weeds we suppose to be dried up and nowhere to be seen. And as weeds are to be met with everywhere, save in those crowded thoroughfares where they have not room to grow, an easy way of getting rid of them is of some consequence, as I here confess I am no advocate for the salting, or poisoning process, recommended by some parties, for I have never yet seen it satisfactorily done; either it has failed in accomplishing its purpose, or the edgings have been killed as well as the weeds; and as hot-water and salt are both expensive items, I prefer the old-fashioned mode of hard labour instead; for we all know, a weed killed by poison remains still where it was growing until it decays; its appearance in that condition being, on the whole, worse than when alive; and I know that a moderate salting only once performed increases fertility,—weeds, &c., being more plentiful next crop; and, as stated above, the “Shell-cased walk,” allowing the hoe to be used without injury to the walk (the next shower making all right again), that very important matter is a strong recommendation in its favour.

In hilly districts, where there is a difficulty in consolidating a walk to resist floods of water, a sort of concrete bottom has been used by many, composed, as above, of lime and stone; still the surfacing material is likely to get deranged; the only remedy for this is to have as many side openings as possible in walks of this description. I have holes, about four feet deep, dug in the ground at intervals, and about a foot and half from the edge of the walk. This is cased over with wood, and the earth and turf over that, a four-inch drain-pipe communicates with the edgings of the walk, so that it receives the flow of water which the porous nature of the ground quickly disperses. There is, of course, a considerable deposit of sand, &c., but as these holes are generally under turf, they can be examined once every two or three years, and the sand removed, and turf, &c., replaced as before; and they preserve the walks very much, the mouth of the drain-pipe being no great eyesore, less so, I think, than a grating which does not at all times act. However, it is advisable to have these outlets pretty numerous, and where the ground is not naturally porous, some drain or other underground channel must be made to take the water off, the design being to get it as fast away as it collects.

Where walks have to be formed in a stiff, retentive soil, or impervious clay, the ground at the bottom of the stone-work foundation ought to be made sloping from the two sides into the centre, so that the middle may form a sort of valley, in which a drain must be inserted, at least a foot deeper than the bottom of such walk; and whether drain-pipes or stones be used, there ought to be nothing but stone, or similar drainage, over it; and the outlet to such drains ought at all times to be open and free; this will tend to keep such walks dry and comfortable; such walks ought, also, to have an extra

depth of foundation matter, and care taken that nothing of an impervious nature gets into it in the making; the object being to let the water pass through the walk until it comes in contact with the clay bottom, which, being shaped like the central valley of a double-roofed house, the water runs down each side into the gutter, and is then carried off to some suitable place; the top material being gravel, or shells, as above, and not, by any means, concrete or asphalt; which, however suitable in some places, is not so in a clayey, impervious soil, where there is little or no descent. But as asphalt can be used in many cases to great advantage, and in this neighbourhood is much used for public thoroughfares, I will, at an early opportunity, return to it.

J. ROBSON.

NOTES FROM PARIS.

THE FRUIT EXHIBITION.

IN noticing the prospectus issued in the spring by the Commissioners of the Horticultural Exhibition in the Champs Elysées, while the preparations were yet in progress, I stated that the display of fruit would, most probably, be more than usually extensive. Up to the last week of September, however, there were but few signs of my expectations being fully realized. But within the last ten days a wonderful change has been effected in this department. Now, several houses and tents are exclusively occupied with the contributions of provincial Societies and fruit-growers. The raised sloping banks, or beds of earth, on which the plants formerly stood, have been neatly covered with a layer of moss, and on this the numerous collections, comprising several hundred varieties, and thousands of samples, have been laid in plates, and all legibly labelled. There is a decided preponderance of Pears, Peaches, Plums, and Nectarines. One exhibitor has even sent a curious collection of Crabs and Quinces. It is no longer one or two fruit-growers round Paris who sustain the burden and heat of the day; a considerable number of eminent growers, in distant parts of France, have also come forward in their pomological strength, and emptied their cornucopias in the lap of the central Society. The result has been such a display as is seldom, if ever, seen. Nearly every department in France has contributed, and some of the best collections have come from places situated at a great distance, as Bordeaux, in the department of the Gironde, which is bounded by the Bay of Biscay; Havre, at the mouth of the river Seine, on the English Channel; Drome, near the river Rhone, on the Mediterranean; Loire, near the preceding; Ardèche, in the same direction; Toulouse, in the Haute Garrone, close to the Pyrenees; Nancy, in the Memrthe, on the eastern frontier; Lyons, on the Rhone; Montreuil, a famed fruit-growing place near the English Channel. The other departments near the capital are also more or less represented. Now there is but little to notice with respect to plants or flowers, though the garden is still gay with Dahlias, Chrysanthemums, Erythrinæ, Gladioli, and Pomegranates. Everybody is taken up with the fruit and vegetables. Of Melons, Gourds, Pumpkins, and Cucumbers, the number is greater than ever, and three or four long borders are entirely occupied with this class. Some of the larger samples are not much less than three feet in diameter, and several sorts are remarkable for their peculiar forms, or varied colours.

Viewed as a whole, the Exhibition may now be considered not only as a horticultural museum, in which plants, flowers, fruits, and vegetables may be seen, but everything which in anyway can relate to them, whether for the garden or field. And it is surely to be desired that something of the same kind were established in every large town, not only in France, but in England also. At all events, I should hope that the directors of the Jardin des Plantes here, which is properly called the Museum of Natural History, will be now disposed to do something, in order to secure a place for fruits and vegetables in their spacious galleries. Are these not as much a part of natural history as plants and flowers? Or are they less suited for exhibition in a public garden than geological specimens? It is true that there is what is

called a fruit-nursery attached to the Garden of Plants, but this is not public, and it is more for the use of the Professor, when he gives his lectures on pruning and training, than for comparing and identifying varieties of fruit. This department of the garden, which is of unquestionable utility, so far as it goes, was founded so far back as 1792, under the ministry of M. Roland. The young trees—two of every sort—were obtained from the famed nurseries of Vitry and Chartreuse, in the south of France. From the same establishments, Duhamel is said to have obtained his materials for his celebrated work on fruit-trees, entitled, *Traité des Arbres Fruitiers*.

But to return to the fruit exhibition. Though I cannot send you anything like a full report, I shall notice one or two of the principal collections, beginning with the Grapes of M. Barbot, of Paris. Here there are several varieties, which attract particular notice from their small size, being even smaller than peas, but quite ripe, and well coloured. There are, besides, some sorts which are remarkable for their unusually elongated form. One of these, called *Cornichon blanc*, is fully an inch long, no more than a quarter-of-an-inch thick at the middle, and tapering at both extremities: this is a white variety, and the flavour is said to be good. *Cornichon* is a small variety of Cucumber, used here for pickling, and no doubt *Cornichon blanc* has been so named from its having something of the same form. Among the larger sorts, there are some excellent samples of *Chasalas de Fontainebleau*, a popular White Grape, plentiful in the markets at present; *Bourdelais hatif* is a beautiful black variety; *Gros rebier de Maroc*, dark red, is remarkable for its large, oval form; *Gros damas* is a first-rate black sort; *Frankenthal*, in the way of *Black Hamburgh*, and I am disposed to think that, as seen here, this is the same variety. The fruit shown by M. Barbot is exceedingly well swelled and bloomed. I shall just add one more, *Chasalas Napoleon*, a beautiful, large, oval, white variety. M. Jacquet has, among others, a good sample of *Chasalas blanc*, grown in the open ground. Miscellaneous collections have been contributed by M. Foret and M. Courtier, two of the principal fruit-merchants of Paris; also, by M. Boyer and M. Thuillier, of Amiens.

One of the largest collections of Pears and Apples has been sent by the Horticultural and Agricultural Society of Angers. The samples are all neatly arranged and named. Some of the varieties of Pears are uncommonly large, and well ripened, as *Belle Angevine* in the way of the *Duchesse d'Angoulême*, but much larger; some of the samples measure fully six inches in length, and nearly five inches thick; *Calebasse royal*, a copper-coloured variety, at least seven inches long, and proportionably thick near the base. Others, as *Rateau gris*, *Curé*, *Beurré Clairgeau*, and *Belle de Lorient*, may likewise be named in the same category. *Rateau gris* is a dark green Pear, and rather round and full than long. Another good collection, shown by M. Catilland, contains some good samples of *Louis bonne d'Avranches*, a pretty crimson-tinted Pear; *Beurré Spence*, somewhat in the same way; *St. Germain gris*, a large greenish sort; *Beurré magnifique*, and other esteemed varieties.

In the collection of M. Lioret, of Sceaux, are several varieties of Peaches, all of good size and colour. These are *Bourdin de Narbonne*, *Mignonne tardive* (*Lepère*), *Chevreuse bon ouvrier*, and *Galande tardive*. The last is also called here *Noire de Montreuil*, and it has been somewhat abundant this autumn. At present, there is no lack of it and one or two others in the markets of Paris. But there is also a good deal of small, unripe fruit, the names of which it is not easy to ascertain.

In M. Lioret's collection of Pears, the principal sorts are *Louis bonne*, *Belle Angevine*, *Passe Colmar doré*, *Duchesse d'Angoulême*, and *Curé*, all very large and well-ripened fruit.

In the collection shown by M. Dupuy Jarnain there are some fine samples of *Coe's Golden Drop* Plum, and one or two smaller dark red sorts; also, several varieties of Peach, as *Tardive d'Esse* and *Pêche de Boulez* (?). These are particularly well grown. Of Pears, the more noticeable varieties are *Belle de Flandres*, or *Belle de Bruxelles*, rich-coloured fruit; *Beurré d'Amanlis* and *B. Spence*. There is, besides, a good assortment of Apples, among which may be named *Emperor Alexandre*, a large, red-streaked variety; *Belle*

Josephine, equally fine; and several *Reinettes*. M. Julian Pageat has also exhibited an excellent collection of Pears and Apples, including, among the former, *Bon Chrétien d'hiver*, *Curé*, and *Beurré d'Amanlis*. A second collection, sent by the Society of Angers, contains some fine examples of Grapes and Plums. M. Leroy, also of Angers, has a very large collection, containing several hundred varieties. The Directors of the École Impériale d'Agriculture, at Grignon, have sent an extensive collection of Melons, Gourds, roots, and other products of the garden and farm. These occupy the whole of a large tent. Another tent, nearly as large, has been filled with Apples and Pears, sent by MM. Jamin and Durand.

Of Vegetables, generally, and particularly of Melons, Gourds, and Pumpkins, there is an admirable display. The principal exhibitors in this class are M. Vilmorin, of Paris; M. Longlois, of Vaugirard; M. Reddé, of the same place; and M. Lemotheux, near Bordeaux. By-the-by, I learn, on very good authority, that the directors in the botanical department of the Garden of Plants contemplate publishing a large illustrated work on the order of *Cucurbitaceæ*, with special reference to the fruit. Upwards of three hundred coloured figures have been already prepared, nearly all of the natural size. Some considerable time must elapse, however, before the literary part of such an undertaking can be completed.

There is but little to be said respecting the plants and flowers of the Exhibition. There is a brilliant display of cut Dahlias in what is called the Chinese Pavillion. The greenhouse plants have all been taken away to make room for the fruit. The stove and aquarium are now the only houses in which a few solitary flowers are to be seen. The *Victoria* has continued flowering at intervals since the 22nd of August. The leaves at present are only about four feet in diameter. There are, also, several pretty *Nymphæas* in flower; and, on the whole, this house, considering the lateness of the season, is well worth a visit. In the stove there are several noticeable Orchids in flower. In the collections of MM. Thibaut and Keteleer, the best are *Arides suavissimum*, *Cattleya Harrisonii*, *Dendrobium chrysanthum*, *Vanda tricolor*, and *Miltonia Morrelliana*. The *Miltonia* is a small plant, with one large and beautiful flower. M. Chantin has the pretty *Burlingtonia decora*, *Calanthe masuca*, *Zygopetalum intermedium*, well flowered, *Maxillaria picta*, and a well-grown plant of *Miltonia Morrelliana*, having seven flowers. With this collection, are three or four plants of *Bilbergia splendens*. M. l'Homme, École de Médecine, has good examples of *Vanda cærulea* and *Lælia cinnabarina*, with one or two others of less merit. M. Leroy, of Passy, near Paris, has shown a beautiful *Odontoglossum grande*. In the same house, there is a large bushy plant of *Cassia grandiflora*, profusely flowered, belonging to M. Pelé, of the Rue de Loureine, Paris. A little in front of this house there is a beautiful clump arranged in the circular manner; and it may be worth while just to name the plants of which it is composed. About six feet of the centre are filled with Dahlias. Then there is a broad circle of well-flowered Pomegranates. The second circle is composed of Pelargoniums, and the third and last circle of White Heaths.

In the markets there is always a good supply of flowers, especially Dahlias, Chrysanthemums, Veronicas, Heaths, Crassulas, Myrtles, Scarlet Geraniums, Phloxes, Pomegranates, and young Orange-trees; the last loaded with small fruit. With these may be also named Roses, Gladioli, Pansies, Nasturtiums, Bignonia scandens, Cobæa scandens, and African Marygolds. The bouquets are composed chiefly of Dahlias and Chrysanthemums, with a mixture of Heaths, Pansies and Pinks, white and red. I have lately seen a style of bouquet which, if it is not new, is by no means common. Three or four raised White Heaths, in spikes, are placed at certain distances in the second or third circle, with their tops tied together right over the central flower, which, in this case, is usually a Rose; then a large Pansy is placed on the top, and in this way the string with which the extremities of the Heaths are tied together is concealed. This little additional touch does not interfere with the usual formation or general effect of the bouquet; and though, perhaps, it can only be called a whim, it is pretty enough, and may be adopted in the way of variety with advantage. The Heaths raised and tied in this way form, as it were, a

sort of cupola, or dome, the summit of which is about five inches above the general surface of the bouquet.

The weather for the last fortnight has been somewhat chilly and wet, but not so much so as to be disagreeable; and, indeed, after having had more than two months very warm and dry, most people are well satisfied with the change.

The last accounts from the provinces are particularly cheering. The Vine crop, as reported in different quarters, far and near, is by no means so deficient as was supposed, if, indeed, it is less abundant than usual; but all accounts agree as to the superior quality of the fruit. Potatoes, it is stated, are unusually abundant and good. In the different departments from which reports have been received, neither Grapes nor Potatoes have been attacked with disease this year. The late occasional showers have been very beneficial to the country, and the field and garden operations have been prosecuted under the most favourable circumstances. Vegetables, in particular, as well as the common kinds of fruit, are plentiful in the markets of Paris; and though the returns show a deficiency of grain, as compared with former years, to the extent of nearly seven millions of quarters, it is to be hoped that with open ports, and other resources, no great dearth of provisions will be felt during the winter and spring.

October 10th.

P. F. KEIR.

THE PINK IVY-LEAVED CLIMBING GERANIUM.

I AM glad to see that Mr. Beaton, in his article on the Crystal Palace, in the October number of *THE COTTAGE GARDENER*, page 2, has explained the difference between the Pink Ivy-leaf Climbing Geranium, to which he has given the correct name, "*Pelargonium lateripes roseum*," and the Bedding Pink Ivy-leaf, "*Aiton's Pelargonium peltatum*," as I was very nearly, through ignorance, throwing away some cuttings sent to me of the former; and which, though an old plant, is now rather scarce. My cuttings were rescued for me by a friend who was with me, a first-rate gardener, and who pointed out my mistake; but although I was so fortunate, others may not be equally so, and, without Mr. Beaton's explanation, might be led into the same error, which I am sure they would greatly regret, could they see the beautiful effect produced by *Pelargonium lateripes roseum* in the Conservatory at Lady Louisa Cavendish's in Derbyshire, where it covers the back wall, and forms hanging wreaths across the roof, with a profusion of foliage and bright pink flowers; and was, I hear, growing so luxuriantly that it had to be greatly cut back this year, to admit the sun into the conservatory. It also grows in great perfection at Lady Southampton's lovely place at Whittlebury, and in the beautiful garden at Compton Place. Nursery gardeners should procure a liberal supply of it, and offer it on reasonable terms for greenhouse wall-climbers, as it is far more effective under glass than the white Ivy-leaved variety.—FRIEND.

"THE BRITISH WORKMAN."

UNDER this title have appeared nine monthly penny numbers of a most excellent work, calculated to elevate the character and promote all the interests of the workmen in every trade. The illustrations, of which there are eight or ten in each number, are very artistically executed; and, altogether, it is a periodical worthy of unreserved commendation.

The following is an extract from one of the numbers:—

"QUEEN VICTORIA AND THE SCOTCHMAN.—A pleasing incident recently transpired in one of the Scotch Law Courts, which will secure for our Queen many a hearty cheer from British sons of toil. It appears that a mason from Balmoral was being examined as a witness before the jury, when the presiding judge spoke rather sharply to the hard-toiling Scotchman, who, although probably very expeditious in dressing stones, was somewhat slow in addressing the court. In reply, the man said, 'Just allow me to tak' time, my lord, I'm no accustomed to sic' a company.' On leaving the box, the mason said to the bystanders, 'The Queen has

been to my hut, and *she* speaks pleasantly, and draws pretty pictures for the bairns. I would far rather speak to the Queen than to yon chap wi' the big wig.'

"Long live Queen Victoria! who, although swaying the sceptre over dominions in every part of the world, is not above leaving the gaiety of palace life, and, entering the cottage of a working man, is found drawing '*pictures for the bairns*.'"

VERBENA BLUEBEARD.

I OBSERVED, recently in your notices to correspondents in *THE COTTAGE GARDENER*, some allusion made to the Verbena sent out under the name of *Bluebeard*. Allow me to say, that there must surely have been some mistake connected with the sending out of this plant, as it is certainly not *blue*, although it was represented to be so. And, what is still more strange, it is identical with another well-known old variety, sent out several years since, under the name of *Paquin*, or *M. Paquin*. I have now the so-called *Bluebeard* and *Paquin* growing quite near to each other, and no one can perceive that they differ in the slightest degree.—P. G.

QUERIES AND ANSWERS.

GARDENING.

WINTER TREATMENT OF GLADIOLI.

"A two years' subscriber to *THE COTTAGE GARDENER* would feel much obliged for some information regarding the culture of Gladioli. She had some bulbs for the first time, last year, which blossomed beautifully; they were left in the ground for the winter, well protected against frost, and came up again in the spring, but afterwards dwindled away, and never blossomed. Should the bulbs be taken up for the winter? and if so, when ought they to be planted? Any hints as to their culture will greatly oblige—C. I. S."

[We were in the same condition with our own beautiful crosses—not a bloom this summer from many bulbs. We never take them up at all; it is a bad plan; the older a patch of them is, the better they will grow, bloom, and drain themselves. Some people tinker away at their Gladioli, till one is weary of hearing their nonsensical talk. Any light, sandy soil that would grow good turnips and barley will do for Gladioli; they will also grow well in peat, or in a mixture of sandy peat and loam. When *Gladiolus psittacinus* was scarce, we grew the little offsets—about the size of peas—in drills on a Vine border; and sowed them in February, just like Sweet Peas; but most of the sorts ought to be planted in October; but *psittacinus*, *gandavensis*, and the crop of that section, would do to be planted in February, and so on till April. *Psittacinus* is as hardy as the Fluke potato, or more so. Last winter injured our Gladioli so much as to keep them from flowering, but not enough to kill the roots. Every lady ought to grow as many Gladioli as she could get; also the new large Crocuses from Holland—*Sir Walter Scott* and *Queen Victoria*, for instance. The latter is the best white Crocus in the world; *Sir Walter* the next best white, and the best of the white with lilac markings. We bought fifty of each last week for 2s. the hundred.]

TREATMENT OF PLUMBAGO; AGATHECA, &c.

"X. Y. Z., Oxford, has some plants of *Plumbago capensis* just potted off; what should be the treatment? when and where will they bloom? Also, *Agatheca amelloides*, and various *Mesembryanthemums*?"

"How is *Plumbago Larpenia* propagated? Which is the best time to obtain plants of *Alyssum saxatile* and the common *Hepatica*? These are common things, but 'X. Y. Z.' has never cultivated them, and would be glad to begin in the right way."

[*Plumbago capensis* is a greenhouse bush, which may be trained against a wall like a Peach-tree, or fastened up to a pole, or pillar, like a Pillar Rose. It flowers in the height of summer, and is very handsome, but it never succeeds well in a pot.]

Agatheca amelloides, alias *Cinerarias amelloides*, and alias *Aster amelloides*, is the hardiest of all bedding plants which require to be kept from frost. It is a blue Aster, and flowers all the summer out-of-doors; makes a nice little bed, or an edging to a nicer one, and is the easiest plant in the world to propagate by cuttings, and to keep in winter, if the frost is not severe.

The *Mesembryanthemums* are succulent plants, and some of them are more so than the common Cactus, and from that they run out in a series to dry sticks with small leaves. The treatment must be according to the kinds, but they all require the greenhouse, or good, dry frame, and little water in winter. Some of them never flower in Europe; some only by the sea-side, and one or other of them is in flower, or might be, every month in the year. There are more than 400 kinds of them.

Plumbago Larpentæ is propagated as easily as a Verbena, and more so; for you could divide an old plant to ever so many, and there is no end to cuttings of it from January to October.

The best time to get *Alyssum saxatile* is from the 20th to the 30th of October.

The best time and way to get *Hepaticas* is in the spring, in pots, and in full bloom, so as to be sure of the sorts; but they will transplant in spring and autumn.]

FORCING STRAWBERRIES AND CUCUMBERS.

"I want to force a few Strawberries. Next, I want to grow a few Cucumbers, and to do this I have but small means. What I have to do it with is a small pit, fifteen feet long, seven feet wide, three feet in front wall, four feet in back wall, and a division in the middle. It is heated with pipes—hot-water—two rows against the front wall for top-heat, and troughs on them to hold water for moisture, and two rows on the bottom for bottom-heat. The bottom pipes are laid in bolder a foot deep, and then some straw on them to keep out the soil. The Cucumber has not done well this summer. I built the pit in the spring, so how it will answer in winter I do not know. I never had one before, neither did I ever force any Cucumbers, or Strawberries, so please to tell me how to proceed and what, sorts to get. The pit is glazed with Hartley's plate glass, and the pipes are fed with one-inch bore pipes.—NEWCASTLE."

[We do not see why you fail of success. To grow Cucumbers well, you must have a bottom-heat from 70° to 80°, and top-heat from 65° to 70°. For long sorts, more full details have lately been given. If you consult the index of the last volume, you will find a good, short abstract on Strawberry forcing; and if you act up to it, you will be sure to succeed, and the sorts are mentioned. Commence with 45°, and raise gradually to 55°, and to 60° when the bloom shows; they will stand more when set. The kinds are Black Prince, Kean's, and British Queens, using the Prince first. Now, supposing that you must heat both divisions when you heat one, that will make the difficulty, but not an insurmountable one. We have had Cucumbers, Melons, Strawberries, and Geraniums, all in one range, with divisions, and the difference in air-giving and covering made a climate suitable to each. Now, suppose that you place your Cucumbers next the boiler division, you can keep up the requisite heat then by covering at night, and a minimum of air during the day, whilst you keep the other place, say 15° to 20° cooler by giving air, and little or no covering. You will not succeed with growing Cucumbers and Strawberries in the same identical place; but when once your Strawberries are fairly set and swelling, you might ripen them in the Cucumber division by placing them on a shelf; but they will not be so well flavoured as if ripened in a cooler atmosphere and with more air. When you look over previous directions that we think would meet your case, and still you find difficulties, write again, and state what they are.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

BEDFORD. November 7th and 8th. Secs., J. T. R. Allen, Esq., and F. A. Lavender, Esq. Entries close October 16th.

BIRMINGHAM. 11th to 14th of December. Sec., J. Morgan, jun., Esq. Entries close November 10th.

DORCHESTER. 24th and 25th of October. Sec., G. J. Andrews, Esq.

DURHAM AND NORTH YORKSHIRE, at Darlington, 6th and 7th of December. Sec., J. Hodgson, Esq. Entries close November 19th.

LANCASHIRE (EAST). At Colne, Oct. 31st, and Nov. 1st. Secs. Messrs. T. and E. Booth, Marsden, near Burnley. Entries close October 17th.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. Sec. R. Hawksley, jun., Esq., Southwell. Entries close November 20th.

SOUTH DURHAM AND NORTH RIDING OF YORKSHIRE. At Darlington, December 6th and 7th. Sec. Jno. Hodgson.

TAUNTON AND SOMERSET. Nov. 23rd and 24th. Sec. Wm. Buncombe, Esq., Taunton. Entries close November 3rd.

N.B.—Secretaries will oblige us by sending early copies of their lists.

STATE OF OUR VARIOUS BREEDS OF POULTRY.

(Continued from page 13.)

It is probable that Game Fowls are neither more generally kept, nor attain a much higher standard of excellence, since the period from which Poultry Exhibitions date their origin. Their hardy constitutions, the facility with which they obtain for themselves a large portion of their food, their excellence for the table, and the little trouble to which, in other matters, they put their owners, are all circumstances of strong general recommendation. Independently, however, of such inducements, many strains have long been maintained, with the utmost care, for purposes which, though in defiance of Acts of Parliament, have gained such hold in many English districts, that no one can be supposed to ignore the existence of the practice, whatever be his opinion concerning it.

But notwithstanding the favourable position that the Game Fowl has thus held, and its consequent comparative superiority over the specimens of other breeds ordinarily to be met with, it cannot be said to have profited nothing from the public competition it has more lately entered on. If all other points were duly regarded in years gone by, "feather" was, perhaps, held somewhat too cheaply; and the necessary attention to this particular on the part of the exhibitor has certainly contributed greatly to the beauty of the bird's appearance. The minutiae essential to the success of a pen at an exhibition has likewise drawn attention, though, it must be acknowledged, more slowly than any other class, to matching its several inmates in respect of the colour, not merely of their plumage, but likewise of their legs and feet. There still, however, at times occurs, on such occasions, a strange intermixture of specimens of the distinct sub-varieties, fatal, of course, to the chances of success, notwithstanding the merits of the individual specimens.

A just summary, therefore, would represent Game Fowls as having gained in appearance, at least, from the institution of poultry shows, even if it could not be shown that they had advanced in the other characteristics and properties of their race.

How very seldom does it happen that the *Hamburgh* classes are well represented, even at the most popular exhibitions! Why this should be so is difficult to understand, at any rate in their favourite localities. Their numbers are surely sufficient to warrant the expectation of a fair proportion of meritorious specimens, and the long catalogue of names that usually appear in the entries at the northern shows, testify that there is no unwillingness to compete on the part of the owners. The features of excellence, moreover, are well defined, perhaps, even with greater unanimity than exists with other fowls, yet the judge is certainly more commonly subjected to disappointment here than in the other departments of his office.

At first, indeed, birds were probably selected with less attention than they now receive; and thus a fault, in a single instance, justly told against the whole pen; but as the general result, it can hardly be said, that *Hamburghs* have effected

any great advance since the time that our comparison commences. Had the effort to introduce the hen-tailed cocks succeeded, it might have been truly asserted that they had decidedly retrograded; but such a misfortune was happily averted, by the steady remonstrances of those who opposed the attempt, not less on the score of the probable evils to be apprehended to the breed, than as impairing the appearance of the bird.

It is a frequent subject of remark, that Hamburgs should not be criticized by their appearance in the south, but that their peculiar districts, in the north and midland counties, alone offer a fair estimate of their merits. No one can demur to this; and what has now been stated is based on the results of the very districts most celebrated for the various breeds. If the pencilled and spangled birds are taken separately, the latter, perhaps, are those where stricture should be least severe. The golden spangled, especially, would seem to claim the merit of greater improvement than could fairly be accorded to the other varieties; but how few pens even of these are now to be seen perfect in the white ear-lobes, so essential a feature in the Hamburg class.

In both these last-named fowls, as also in the Game, the remark already made, in the instance of the latter, may carry with it some explanation of this seeming stationary position of the two families. The greater care and attention bestowed upon both of them previous to days of general poultry shows, arising, as it did, from the peculiar circumstances and purposes for which the Game Fowl was kept, and, on the other hand, the existence, for a long course of years, of numerous small, local societies, where the Hamburg was the sole object of interest, have probably tended to bring about the conclusion that has been stated, viz., that neither of these races exhibit a corresponding advance in merit correlative to the present position of most other fowls.

The most striking recent distinction in the *Poland* classes, is the introduction of the white, buff, and black, and some other coloured birds, into the ranks that formerly were usually made up of the more common white-crested black, the gold, and the silver varieties. No description of fowl had a better chance of profiting by the keenness of the poultry fancy of the last few years. Economical properties might be laid aside, and feather alone has been the breeder's aim. Nor have the labours of the latter passed unrewarded, though, in many instances, where birds are submitted to competition, a reference to long-established and well-known rules should have guided their owners to the more prudent course of not thus displaying their faulty favourites; for the Poland class is seldom exempt from objectionable features in the candidates, among which may be enumerated coarse combs and ill-shaped crests.

The black-crested white Poland, whatever partial success has here attended the experiments of some gentlemen, is still one of the great desiderata of the poultry-yard. We have yet to regard it as "*Rara avis in terris nigroque simillima cygno.*" But, unknown as was the Black Swan to the ancients, it may reasonably be hoped, that a less period of years will restore to us the black-crested white Poland, than sufficed to introduce the beautiful Australian Swan, with its jet black plumage. The experiments of Mr. Tegetmeier, recently alluded to in *THE COTTAGE GARDENER*, point to the probability of such a result, as also to that of several of the less distinct sub-varieties having been brought into existence by the alliance of parents of certain colours, within a comparatively short term of years.

The character of Polands, as profitable poultry, remains unchanged. Beautiful as they undoubtedly are, they are better suited to the aviary, which few persons can now afford, than the purposes of economy.—W.

THE PROTEST AT ANERLEY POULTRY SHOW.

In reply to the letter from Mr. Lewry, in your Journal of the 9th instant, I beg to hand you the inclosed, and shall feel obliged by your finding space for it. I regret exceedingly being compelled to take this step, but cannot see any

other way of clearing myself of the accusations brought forward by him.—HENRY F. WELLS.

"Poultry Show Offices, Anerley Gardens,

"August 29, 1855.

"DEAR SIR,—The '*protest*' of Mr. Lewry has been submitted to our Committee; and, in consequence of his stating, in my presence, that the birds in Pen 77 were bred in December, '54, and afterwards saying *September*, '54, we consider him influenced by *other motives*, and his statements not entitled to credit.—Yours truly,

"JOHN N. RYDER.

"Mr. Wells."

October 17th.

In reply to the remarks of "*Fairplay*" and "*An Advocate for Fairplay*," I consider it but right I should make a few statements of facts in connection with the birds exhibited in Pen 77, as they appear to be labouring under some slight mistake. Mr. Davies was the first to bring the matter before the notice of the Committee, as some person (a stranger to him) stated he could prove the birds were hatched in '54, last year, and they were in his possession so recently as two months, and he identified the cock by the broken toe. Inquiries were instituted by our Committee, and it was clearly proved to them that the birds had been in the possession of Mr. Davies four months, and that the accident to the Cock's toe occurred in his own yard. With respect to the age of the chicken, the Judges were of opinion they were hatched this year.—H. F. WELLS.

MINORCAS.

ALTHOUGH disposed to bow with every respect to the opinion of "*W.*," yet, when I see a loop-hole, I like to have a shot at him, knowing the return will be to my advantage, inasmuch as it will elicit information from him.

I object, then, to the use of the term "*Minorcas*," when speaking of Spanish. The fact of some having red faces does not alter the breed, because it is unquestionable, that in every brood, even from the best parents, there will be almost as many red as white-faced, or, at least, very partially white. The white face is, beyond a doubt, the most important point in a Spanish fowl; but it is not the only one. Length of head and leg, size and shape of comb, carriage, and tail, are all points.

The nomenclature of fowls is already too extended, and I would rather lessen than increase the list. I am not of opinion that the red-faced are better layers, or that the shells of their eggs are stronger, unless they have been crossed with some other fowl. If such be the case, they cease to be Spanish.—SENEX.

SELECTING CHICKEN AND OTHER POULTRY FOR EXHIBITION.

HAVE duplicate birds for every one intended for exhibition. Accidents constantly happen, and defeat often follows the substitution of a strange bird.

Let those intended for a pen be used together some time before they are sent away, and see that they agree. It does occur that cocks and hens,

"Like wit and judgment often are at strife,
Though meant each other's aid; like man and wife."

And it cannot be too strongly enforced that the fact of shutting them up together does not imply harmony. The antipathies of fowls are sometimes inexplicable. Let them travel in a round, close, wicker basket, covered with stout canvass. If it be possible, and if the journey be long, let them travel by night, as it is their natural period of rest. Let them be well fed on slaked meal before starting.

Exhibition fowls should be chosen when young. The earliest Dorking chicken should be selected. The cock that takes the lead among his fellows. Choose him with a large head, good legs and claws, and deep body. Do not be alarmed at a little stiltiness while he is growing. Like boys, they are awkward at a certain age. Never choose a beaten chicken. Choose your pullets long, deep, and loose, you will get size and growth out of them. For early chicken shows, you may take those that appear prematurely com-

plete; cocks with forward spurs, and pullets with combs so red and developed, and with such appearance of maturity that they look like little girls in their grandmother's night-caps; but these will only show successfully as early birds. They become set before their time, and all growth ceases: they make small hens and cocks. In these, as in others, never send a faulty bird, with the idea the judges will not discover the defect.

Spanish chicken should be long in body and legs. The face should be long, skinny, and care-worn in appearance. There is little hope of those that are dark, swarthy, or bright-red in the face, when four months old. If a cock at six months has a well-defined, dark-red mark over the eye, unmingled with white, he will never be a perfect bird. If the red is intermingled with white spots, he is worth a few months' trial. The cock becomes white much sooner than the hens. Pullets should, however, become white at the lower part of the face at six months old, and the paleness should extend every week, gradually pervading the whole, the red becoming paler. Where the breed is unquestionably good, there is uncertainty enough in the period of their perfection to justify any one in keeping Spanish chicken twelve months before they are discarded.—X.

EXHIBITION OF POULTRY AT THE CITY OF CHESTER.

ON Wednesday, the 10th inst., the Association recently formed to improve the breeds of domestic poultry in this county (which had hitherto been much neglected), held their first Annual Meeting on the Race Course, immediately adjacent to the city. The entries were somewhat above a hundred pens, and the competition in the generality of the classes very creditable, and, in some, extraordinarily severe. The avowed object of its spirited projectors was to add to the *utility* of poultry for domestic purposes, rather than encourage those varieties that are most approved as *fancy* fowls. Their efforts were successful; the *Dorking* classes, and those for *Turkeys*, *Geese*, and *Aylesbury Ducks*, being replete with specimens that would have held good place at any of our most notorious poultry shows. Before we allude more particularly to the fowls themselves, we cannot forbear making a few observations on the general arrangements. They were of the most simple yet effective character, and what in these matters is all-important to the interests of the society, the outlay was *only a fraction* of the expense commonly incurred by poultry committees on similar occasions.

The general effect was unique in the extreme, and the congratulations of many of the most experienced of our exhibitors (who witnessed it) bore concurrent testimony to the marked improvement thus instituted. First, as to the tent itself. This was erected at very trifling cost, being composed entirely of the lowest-priced unprinted calico, strained tightly on a temporary framework. As a matter of course, the roof sloped *very considerably*, to cause the rain (had it fallen) to pass off with rapidity; luckily, however, on this occasion it was *not tested on the day of public admission*, though it resisted a heavy rain of six or seven hours duration the preceding evening, without a solitary drip anywhere.

The extreme length of the tent thus erected was upwards of one hundred and twenty yards! It afforded ample room for the visitors assembled to walk on *either* side of the poultry pens, which were ranged in a single line, on tressels raised about three feet from the ground. The tressels and also the empty baskets were alike altogether hidden from public view, by a width of the same calico as that used for the covering of the tent itself, being so tacked as to hide the woodwork and reach to the floor.

We will now proceed to make a very few observations on the coops themselves, as we are desirous of drawing public attention to their construction particularly. They are manufactured by Mr. Hawkins, wire-worker, of Dale End, Birmingham, from a design of Mr. Edward Hewitt, of the same town. It appears, the attention of the latter gentleman has been long directed to the most efficient "exhibition coop" that could be devised,—not only, first, for the comforts of

the poultry themselves, during their confinement, and as offering the least possible obstruction in viewing the collection,—but, also, to the not less important considerations of limited outlay in manufacture, and the most inexpensive formation, for the purposes of extended transit from place to place. The coops will, on these grounds, be found very desirable. When erected, they each form an oblong square, three feet by two feet six, and two feet six inches high. On the side is a door, about a foot square, that fastens similarly to the door of a Parrot's cage; by means of this, access is readily obtained, when wanted, to the poultry within, without incurring the slightest danger from the escape of any of the other inmates than the one desired to handle. This provision, the necessity of which all parties connected with poultry shows will at once acknowledge, has again and again been made distressingly obvious to ourselves, when viewing the difficulties ever consequent on the escape of poultry during the public admission; or, indeed, when either cooping, or re-packing them for their return homewards. On such occasions, the clamour raised by the pursuers not unfrequently materially injures *other* specimens, from the flurry and consternation that everywhere prevails. The door does not interfere with the appearance of the wire-work, and, to many of the visitors of Chester, remained entirely unknown. The coops, when not being used, fold into a space of scarcely one inch in thickness. Four small wire staples, driven into the tressels, fasten them very securely at either corner; and the general impression at first sight would be, they were merely placed where they then stood for the reception of the poultry. The water is supplied from any convenient vessel placed *outside* the coop, which prevents the ill-effects always attendant on poultry dabbling in their water-troughs when endeavouring to obtain their freedom. The obvious advantage of thus folding into so exceedingly limited a space for travelling is this,—the railway companies transmit them "per ton, as common merchandize;" the weight is very trifling, and the expense, therefore, proportionably insignificant. When pens still occupy (when travelling *empty*) the *same* amount of space as during exhibition, the rates must of course be always proportionably increased. All the coops are galvanized to prevent rusting, and a single workman can erect upwards of 300 of them per day. At Chester, it was purposely arranged to allow a foot between the pens, to prevent the fowls fighting. *It answered well*; though from the open character of the wirework the fowls could see each other as distinctly as though no restraint to their pugnacity intervened. Where space is important, and *limited*, the coops will be sent out, each of them with an end *replaced* by one of galvanized sheet-iron, to prevent the possibility of collision between infuriate neighbours. The size of the pen prevents injury to the plumage of the poultry, whilst the square shape affords protection, so far as possible, in case of any sudden intestine outbreak among the birds to which it is allotted. No impediment is offered to free observation on *all* sides, and the quietude with which the poultry at Chester regarded the visitors was really remarkable. We have been informed, it is the intention of Mr. Hawkins to hire out these pens to Committees of Poultry Exhibitions, at one shilling each. The expenses hitherto incurred (should such be correct), will be greatly lessened in carrying out a Poultry exhibition. The annoyance of finding store-room, from year to year, for the coops, will be avoided altogether; and upon the final close of "the entries," the managers will be able to engage *exactly* the number of pens wanted, upon the terms of contract, without those additional extras that have, of late, formed so heavy and serious an item in such matters, especially with the inexperienced. The day, as before hinted, was perfectly fine; a band of music enlivened the proceedings; and the numbers who attended the Exhibition were far more than the Committee had anticipated.

The classes for *Grey Dorkings* were, undoubtedly, the best throughout the whole collection. In these classes, the highly celebrated birds belonging to William Wright, Esq., of West Bank, near Runcorn, Cheshire, secured the principal premiums,—they were of the same excellent character that gentleman usually exhibits.

In the chicken class, however, an "extra first prize" was given, at the request of the Committee, of the value of two pounds, to a pen of three Dorking chicken, the property of

Mr. Wm. Bromley, of Smithfield, Birmingham. At the onset, these fowls (though decidedly the best pen of any shown at Chester, or, indeed, that we remember to have yet seen) were "disqualified," from being shown with two pullets instead of three. The misunderstanding seems to have arisen pretty generally from the ambiguity of the prize list issued by the Committee, as upwards of twenty pens were thus placed beyond hope of success, from wrong entering of their different owners. It was from this cause, that it was decided "so meritorious a pen of poultry should not pass the first meeting at Chester without reward;" and we have little doubt, but at future exhibitions they will be found rivals of no mean pretensions, even in contests among the most highly reputed breeders. The colour of the birds alluded to was a uniform dark gray, with extraordinarily compact plumage, and, for size and weight, when handled, none were shown that equalled them. The *Cochins* were evidently looking downwards: few were superior, and their present condition by no means such as rendered their exposure in a show pen at all desirable. Several pens of young *Spanish* were exceedingly good; but, from the peculiarity of the prize list, very many varieties of chicken contested together for the same rewards. The class appeared in the catalogue under the heading of "Chicken of ANY breed." The entries were by far too numerous and diverse for the prizes here offered. The *Stylish Ducks* presented a whole class of superior birds. The *Geese* were very superior, and the *Turkeys* likewise; the hens in the first-prize pen of *Turkeys* were perfect giants, compared with those ordinarily exhibited. They were by far the largest we ever remember to have seen, and belonged to the county, being the property of Edward Woollett Wilmot, Esq., of Congleton, Cheshire.

Another year, the irregularities in the prize list will be amended, and, in justice to the committee, we must admit, for a first show, we have rarely visited one more discreetly arranged.

The Judges were Edward Hewitt, Esq., and James Collins, Esq., both of Birmingham.

SPECKLED OR GREY DORKING.—First, William Wright, Esq., West Bank, near Runcorn, Cheshire. Second, William Wright, Esq., West Bank, near Runcorn, Cheshire.

SPANISH.—First, Mr. Charles Jones, Birkenhead. Second, William Wright Brundrit, Esq., Runcorn.

POLAND.—Prize withheld.

COCHIN-CHINA.—First, Thomas Stretch, Esq., Marsh Lane, Bootle, Liverpool. Second, Mr. William Copple, Eccleston, Prescot, Lancashire. Commended.—John Heape, Esq., Acacia House, Ladypool Lane, Birmingham. Rev. Stephen Donne, Oswestry.

ANY OTHER BREED OR CROSS.—First, John Heape, Esq., Ladypool Lane, Birmingham. (Game.) Second, Mr. Thomas Burnett, Hutton, near Preston, Lancashire. (Silver-spangled Hamburg.)

YOUNG DORKINGS.—First, William Wright, Esq., West Bank, near Runcorn, Cheshire. Second, Edward Lister, Esq., Cassia Lodge, near Northwich, Cheshire. Third, Rev. Stephen Donne, Oswestry. Highly Commended.—Rev. Stephen Donne, Oswestry. Commended.—Field-Marshal the Right Hon. Lord Combermere, Combermere Abbey. Extra First prize, Mr. William Bromley, 19, Smithfield, Birmingham.

CHICKEN OF ANY BREED.—First, Francis Worrall, Esq., Knotty Ash House, near Liverpool. (Silver-pencilled Hamburg.) Second, William Wright Brundrit, Esq., Runcorn. (Spanish.) Third, Mr. Thomas Burnett, Hutton, Preston. (Buff Cochins-China.) Highly Commended.—Thomas Cole, Esq., Lords Wood Road, Buck Lands, near Birmingham. (Spanish.) William Wright, Esq., West Bank, near Runcorn, Cheshire. (Silver-spangled Hamburg.) Rev. Edward M. Pickford, Tilston, near Farndon, Cheshire. (Siberian Ptarmigan.) Mr. Thomas Burnett, Hutton, Preston, Lancashire. (Brahma Pootra.) Mr. Henry Wiggner, Chester. (Brown Red Game.) Henry Worrall, Esq., Knotty Ash House, near Liverpool. (Game.) Ambrose Dixon, Esq., Littleton, Chester. (Game.) Commended.—Mr. B. Newham, 9, Court Newtown-row, Birmingham. (Spanish.)

AYLESBURY DUCKS.—First, John Churton, Esq., Chester. Second, Edward Lister, Esq., Cassia Lodge, Northwich, Cheshire. Highly Commended.—J. Offly Crewe Read, Esq., Wern, Flintshire. Commended.—Field-Marshal the Right Hon. Viscount Combermere, Combermere, Cheshire. Mrs. Drake, Lower Rectory, Malpas. (An excellent class.)

ANY OTHER VARIETY.—First, Henry Worrall, Esq., Knotty Ash House, near Liverpool. (Rouen.) Second, Mr. Thomas Burnett, Hutton, near Preston, Lancashire. (East Indian.) Highly Commended.—James Wickstead Swan, Esq., Chorlton Hall, Cheshire. (Call.) Henry Worrall, Esq., Knotty Ash House, near Liverpool. (Call.) Miss Steele Perkins, Sutton Coldfield, near Birmingham. (Buenos Ayrean.)

GOSLINGS.—First, Mr. William Palin, Stapleford, Cheshire. (Common Breed.)

DUCKLINGS.—First, Edward Lister, Esq., Cassia Lodge, near Northwich, Cheshire. (Aylesbury.) Highly Commended.—Henry Worrall, Esq., Knotty Ash House, near Liverpool. (Rouen.)

TURKEYS.—First, Edward Woollett Wilmot, Esq., Hulme Walfield, near Congleton, Cheshire. (Wild American, and Cambridgeshire.) Second, Henry R. Sandbach, Esq., Hafodunos, Denbighshire. (American.) Highly Commended.—Mrs. Drake, Lower Rectory, Malpas. (White.)

GESE.—First, Mr. William Palin, Stapleford, Chester. (Common.) Second, Mr. Thomas Teasdale, Bath House, Spurstow. (Common.) Commended.—Edward Woollett Wilmot, Esq., of Hulme Walfield, near Congleton, Cheshire. (Toulouse.)

LONDON MARKETS.—OCTOBER 22ND.

COVENT GARDEN.

During the past week large supplies have come to hand, both English and Foreign, especially of English hothouse *Grapes*, which have become quite a drug, good samples having only realized 1s. per lb. in the trade. In addition to our former varieties of *Pears*, may be named the *Duchess d'Angouleme*, *Brown Beurre*, and two or three varieties of the common *Bergamot*. Trade dull.

FRUIT.

Apples, kitchen, per bushel.....	1s. 6d. to 2s. 6d.
" dessert	4s. ,, 6s.
Pears	4s. ,, 8s.
Peaches, per doz.....	5s. ,, 8s.
Nectarines, per doz...	2s. ,, 4s.
Plums, per sieve	4s. ,, 8s.
Pine-apples, per lb....	4s. ,, 6s.
Grapes, per lb.	1s. ,, 6s.
Melons, each	2s. ,, 6s.
Figs	—
Gooseberries, per qt. —	—
Currauts	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel.....	20s. ,, 22s.
Nuts, Brazil, per bushel.....	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts	—

VEGETABLES.

Cabbages, per doz. ..	9d. to 1s.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	2s. ,, 4s.
Broccoli	1s. ,, 2s.
Savoys	—
Greens, per dozen bunches	2s. ,, 3s.
Spinach, per sieve....	1s. ,, 2s.
Beans	—
French Beans, per half sieve	1s. 6d. ,, 2s. 6d.
Scarlet Runners ..	1s. 6d. ,, 3s.

Peas, per bushel	3s. ,, 5s.
Carrots, per bunch ..	4d. ,, 6d.
Parsnips	—
Bect, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Turnips, per bunch..	2d. ,, 3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s.
" Cabbage....	6d. ,, 8d.
Endive, per score....	1s. ,, 1s. 6d.
Celery, per bunch....	8d. ,, 1s.
Radishes, Turnip, per dozen bunches	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet.....	2d. ,, 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	—
Sea-kale, per punnet	—
Rhubarb, per bundle	—
Cucumbers, each	3d. ,, 8d.
Vegetable Marrow, per dozen	6d. ,, 1s.
Tomatoes, per punnet	1s. ,, 2s. 6d.
Mushrooms, per pottle	1s. 6d. ,, 2s.

HERBS.

Basil, per bunch	6d. to 9d.
Marjoram, per bunch	6d. ,, 9d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch ..	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch ..	2d. ,, 3d.
Mint, per bunch	4d. ,, 6d.

GRAIN AND SEED.

FRIDAY, OCT. 19.—The arrivals still continue moderate of Wheat, Oats, and all other grain. This morning the Wheat trade rules brisk at an advance of 2s. per quarter on Monday's currency. Barley experiences a quiet demand. Old oats are 6d. higher, but the new Irish descriptions are difficult to sell. Beans and Peas of all sorts are held for firmer quotations.

WHEAT.

Kent and Essex, red, per qr.....	83s. to 86s.
Ditto, white	88s. ,, 92s.
Norfolk and Suffolk..	78s. ,, 80s.
Dantzic	88s. ,, 92s.
Rostock	81s. ,, 90s.
Odesa	73s. ,, 76s.
American	83s. ,, 85s.

BARLEY.

Malting	44s. to 45s.
Grinding and Distilling	34s. ,, 36s.
Chevalier	36s. ,, 38s.

OATS.

Scotch, feed	31s. to 32s.
English	26s. ,, 27s.
Irish	25s. ,, 28s.
Dutch Broo	29s. ,, 30s.
Danish	25s. ,, 29s.
Russian	26s. ,, 29s.

BEANS.

Harrow	40s. to 42s.
Pigeon	42s. ,, 43s.
Tick	40s. ,, 41s.

PEAS.

Boiling, per qr.....	53s. to 56s.
Common.....	38s. ,, 40s.
Grey.....	37s. ,, 40s.
Maple	42s. ,, 44s.

SEEDS.

Turnip, White, per bushel	—
Swede	—
Rape	84s. ,, 86s.
Linseed, sowing, qr.	80s. ,, 84s.
" crushing ..	74s. ,, 76s.
Clover, English, redewt	60s. ,, 68s.
" Foreign do.	52s. ,, 57s.
" White	68s. ,, 73s.
Trefoil	28s. ,, 32s.
Rye, per qr.....	52s. ,, 54s.
Tares	42s. ,, 44s.
Winter, bushel	12s. ,, 14s.
Canary, per qr.....	64s. ,, 72s.
Hemp	54s. ,, 57s.

Linseed Cake, per ton.....	£11 to £12 10s.
Rape Cake ..	£6 10s. ,, £6 15s.
Indian Corn	47s. ,, 50s.

HOPS.

BOROUGH MARKET, FRIDAY, OCT. 19.—During the last few days our market has not been quite so active, although for fine samples prices are sustained. Weyhill Fair passed off well, and a clearance was effected of all the Hops pitched for sale. Our market to-day is rather quiet, and the currency may be quoted at about the annexed rates. Mid. and East Kent, 90s. 115s. to 130s.; Weald of Kent, 86s. 95s. to 100s.; Sussex Pockets, 80s. 86s. to 96s.; Country Farnhams and Farnhams, 90s. 112s. to 120s.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.	Meadow Hay, new	95s. to 120s.
Clover, new	120s. ,, 135s.	Rowan	80s. ,, 90s.
Ditto, 2nd cut	90s. ,, 140s.	Straw, flail	30s. ,, 36s.
Meadow Hay	90s. ,, 130s.	Ditto, machine	28s. ,, 30s.

POTATO.

SOUTHWARK WATERSIDE, OCT. 15.—The arrivals have been limited, and an advance has been realised upon late quotations. The weather is cold, which assists sales. Buyers purchase sparingly, in anticipation of further arrivals. A cargo of Scotch has reached this market from Dunbar, and others are close at hand. Some shipments have taken place during the past week to parts in Devon and Cornwall. The accounts daily received confirm previous reports of the fine quality and abundance of the crop. Kent and Essex Regents, 90s. to 100s.; ditto Shaws, 85s. to 95s.; ditto Blues, 80. to 85s.; York Regents, 95s. to 100s.; Scotch Regents (Dunbar), 100s.; Ditto (Perth and Fife), 90s to 95s.; Ditto (North Country), 90s.; Lincolnshire Regents, 85s. to 95s.; Wisbeach and Cambridge Regents, 85s. to 95s.; Ditto common Whites, 80s. per ton.

MEAT.

Beef, inferior, per 8lbs.	3s. 4d. to 3s. 8d.	Mutton, prime	4s. 6d. to 4s. 10d.
Do. middling	3s. 10d. to 4s.	Veal	3s. 10d. to 4s. 10d.
Do. prime	4s. 2d. to 4s. 4d.	Lamb	5s. 4d. to 5s. 10d.
Mutton, inferior	3s. 4d. to 3s. 8d.	Pork, large	3s. 8d. to 4s.
Do. middling ..	3s. 10d. to 4s. 4d.	Ditto, small	4s. to 4s. 6d.

POULTRY.

The supply of Poultry during the past week has been rather larger. The demand about the same. Pheasants are scarce, and the supply of Partridges does not bear out the belief that was entertained of an unusually good season for them.

Large Fowls 4s. 6d. to 5s. 6s. each.	Partridges.. 1s. 9d. to 2s. 0d. each.
Smaller do. 3s. 6d. to 4s. ,,	Hares 3s. 0s. to 3s. 6d. ,,
Chicken .. 2s. 0d. to 2s. 9d. ,,	Grouse 2s. 0d. to 2s. 3d. ,,
Geese..... 6s. 0d. to 7s. 0d. ,,	Rabbits .. 1s. 4d. to 1s. 5d. ,,
Ducks 2s. 9d. to 3s. 3d. ,,	Wild do..... 10d. to 11d. ,,
Pheasants.. 3s. 6d. to 4s. 0d. ,,	Pigeons .. 8d. to 9d. ,,
Turkeys... 5s. 0d. to 6s. 6d. ,,	

PROVISIONS.

BUTTER.—Cwt.	CHEESE.—Cwt.
Dorset, fine	Cheshire, fine
Do. middling.....	Gloucestershire, dblc.
Fresh, per doz. lbs.	Ditto, single
Friesland	Somerset.....
Kiel	Wiltshire, loaf
Carlisle	Ditto, double.....
Waterford	Ditto, thin
Cork.....	Ditto, pines
Limerick.....	Berkeley, thin
Sligo	

BACON.—Cwt.	HAMS.—Cwt.
Wiltshire, dried ..	York, new
Waterford	Westmoreland
	Irish.....

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11d. the 4lb. loaf, but in other places the bakers are selling the best bread at 8d. the 4lb. loaf, while in the cheap neighbourhoods they profess to sell at 7½d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. ,, 1s. 2d.
Ditto Tegs and		Leicester fleeces....	1s. ,, 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hog-		Combing skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia. 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

TRAINING A VINE (R. L.—, Thame).—If you mean to follow Hoare's rod system, cut six shoots down to the bud, to give a shoot each for next year; shorten the others a third, and take about two bunches from each. If you mean to adopt the spur system, cut every other shoot out, and shorten the remaining ones one-half, unless very strong. Be satisfied with letting them go to the top of the house next year. Do not take above twelve or fifteen bunches next season. The idea of training

the Vine lengthwise, as you have done, is a good one in such a narrow house.

HEATING BY HOT-WATER (A. L. Melville).—A small or middle-sized boiler will be sufficient. The four-inch pipe, as you propose, will give you enough of heat; though it may require good fires in severe frosts. The air-pipe at A is all right. How do you fill your boiler? If you have no other means, instead of a half-inch pipe at A, you would require a four-inch one for pouring the water in, or a small cistern. Your steam-pipes at D and E, if four inches in diameter, would answer a similar purpose. The pipe from D and E, where it crosses into H, should be just as high as the greenhouse one there, and then both places would heat very well. But it would be difficult to heat them separately. Why not use some twenty feet more pipe, and take the pipe round in D and E, the same as in the greenhouse, and with a stop-cock on the two floor-pipes near the boiler, you could heat either place separately, at your pleasure. You say nothing of these stop-cocks, but they will be necessary. In spring, and even summer, heat would be valuable for your Melons, &c., when it would be better away from your planthouse.

BACON CURING.—An Old Subscriber, Morayshire, would be glad of a good receipt for curing bacon. As at present cured it is always rancid, although the hams are good.

BOOKS (Idem).—Richardson's work on "The Pig" is very good. We are just on the eve of publishing Mr. Tegetmeier's essay in our columns.

OVENS (Idem).—They are sold at a shop in New Oxford Street; but we do not know whether they or the Mills you mention are successful.

TAMARISK AS AN EDGING.—M. P. L. wishes to know whether it can be cut so as to form a chain edging, and where it can be purchased?

BRIDGEMOUTH POULTRY SHOW.—We are very much obliged to An Old Subscriber for his report; but he will have seen that we had published one from our own reporter.

BERKHAMPTSTEAD NURSERIES.—ERRATA, page 20, 1st col. 15 line s from top, change *craggy* to *clayey*; page 21, 1st col. 11th line from the top, instead of "conveyed afterwards, to within a few inches of the wooden side-wall," read "conveyed upwards, to within a few inches of the top of the wooden side-walls."

I shall be obliged if this appears at the end of the concluding notice of "Berkhamptstead Nursery;" as several letters have come complaining of the ambiguity, but wishing to try the plan spoken of. The correction will make all plain.—R. F.

POULTRY FOR PROFIT (A. Begby).—Cochin-China pullets and a grey Dorking cock; Aylesbury ducks; Thoulouse Geese; and grey Cambridge-shire Turkeys, are the best you can keep. Celery is best sown on a slight hotbed to forward the seedlings; but does not even require that, if sown on a warm, rich, south border. How can we say how you should use Guano, unless we knew the crop you intend it for?

DIOSCOREA BATTATA.—T. G. Spencer wishes to know when this plant should be taken up? We fear that it is perfectly immaterial when it is taken up; for, as we suggested at the very first, our climate is not suitable for its growth. We shall be glad to hear from any one the results of his attempt to grow it.

COMB OF THE SPANISH COCK (Constant Reader).—The comb of a Spanish cock should be large, and if perfectly upright, so much the better. Even in the best birds there is sometimes an inclination to turn over at the end, and this is often the case as they get old. A crooked comb is a serious objection. A perfectly upright and straight comb is most desirable, and one of ample dimensions will denote more breed than a small one. It should not, however, amount to a deformity, as some of the Hambro's do in the present day.

ENGLISH BREEDS OF POULTRY FOR FRANCE (F. W. Canterbury).—They are being sent by Mr. Bailly, 114, Mount-street, Grosvenor-square.

CIDER-MAKING (A. C. B.).—In our 234th Number you will find full directions.

EDINBURGH (A Subscriber for Years).—Be kind enough to forward your address to our Office, as we should like to correspond with you on the subject of your letter.

STOCKWOOD GOLDEN HAMBRO' GRAPE (Y. A.).—We believe that Messrs. Veitch and Son, of Chelsea, have purchased the stock of this Grape.

SHANKING IN GRAPES (Idem).—This usually arises from the roots, either from being kept too cold, or in a poor soil, being unable to supply sap sufficiently fast to sustain the rapid growth of the bunches, &c.

THE PROTEST AT THE LATE ANERLY POULTRY SHOW.—An Exhibitor at Anerly says:—"If the Dorkings shown at the above exhibition, by Mr. Davis, are the same birds (of which there is little doubt) that were disqualified at Carlisle, on account of their age, the exhibitors, certainly, have a right to ask for an explanation."

BOOKS (Thomas Glasspool).—The only book we know of which would furnish all the information you require is *Decandolle's Prodromus*. The price is very high, as it is a very extensive work; and for further information apply to some Foreign Bookseller.

NAMES OF PEARS (R. Norwood).—Not the Seekle, but *Knight's Monarch*, a very excellent variety. (G. R. B.).—Yours is *Beurre de Rance*.

NAME OF PLANT (F. W. S.).—It is *Buddleia Lindleyana*. We have had it for several years upon a south wall, where it blooms freely.

MOVING OLD ASPARAGUS (An Old Subscriber).—Although planted four years, and therefore at least six years' old, we should move the Asparagus, doing so next April. Begin at one end of the bed, dig a trench three feet deep, and as many wide, and then scratch away the earth from the roots in succession; injuring them as little as possible; planting them again with the least admissible delay; and in the meantime keeping them covered with wet straw. Plant as fast as you take up in the new beds previously prepared.

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WEEKLY CALENDAR.

D M	D W	OCT. 30.—NOV. 5, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
30	TU	Woodeock arrives.	30.172—30.061	65—36	S.W.	—	51 a 6	36 a 4	7 56	19	16 12	303
31	W	Wild Duck arrives.	30.159—30.035	67—33	S.W.	01	53	35	9 3	20	16 15	304
1	TH	ALL SAINTS.	30.361—30.352	61—32	S.W.	—	55	33	10 a 16	21	16 17	305
2	F	November Moth.	30.424—30.161	59—39	S.E.	—	57	31	11 29	22	16 18	306
3	S	Winter Moth.	30.265—30.215	52—25	N.	—	58	29	morn.	23	16 18	307
4	SUN	22 SUNDAY AFTER TRINITY.	30.197—29.992	58—49	W.	—	VII	27	0 41	24	16 18	308
5	M	GUNPOWDER PLOT, 1605.	30.144—29.982	57—29	N.W.	—	2	25	1 51	25	16 17	309

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 53.5°, and 38.6°, respectively. The greatest heat, 62°, occurred on the 3rd, in 1852; and the lowest cold, 20°, on the 3rd, in 1845. During the period 97 days were fine, and on 99 rain fell.

ASPLENIUM TRICHOMANES.

THIS is the *Common Maidenhair Splenwort*, *Common Wall Splenwort*, *English Maidenhair*, and *English Black Maidenhair* of our native herbalists.

The main body of the *root* is short, thick, dark purplish-chesnut, tufted, and furnished with many wiry rootlets of the same colour. From the tuft of the root arise many evergreen *fronds*, usually erect, but often spreading. They vary in length from two to twelve inches, and are simply a stalk clothed from the very bottom to the top with leaflets. The *stalk* is smooth, very stiff, purplish-brown, and channelled in front. The *leaflets* are very dark green, numerous, nearly stalkless, more or less alternate, about a quarter-of-an-inch long, gradually diminishing in size towards the top and bottom of the frond, oval but blunt at the upper end, and partially and irregularly scalloped at the upper edge. *Fructification* in six or eight masses, oblong, parallel to each other, but attached to the lateral veins passing obliquely from the mid-vein. The lateral veins divide into two, and sometimes three branches; the upper branch bearing the fructification. The *membrane*, or *indusium*, which covers the fructification, is whitish, and it separates with a wavy edge from the oblique vein to which it was attached, and then exposes the capsules of *sori*, which are dark buff, or brown, and soon run together, or, as it is technically termed, become confluent.

There are three varied forms of this Fern. One, called *incisum* (cut), has the edges of each leaflet deeply and irregularly cut, so as to resemble the leaf of some of the *Cratæguses*. Another form has the leaflets so crowded together, that they overlap each other like the tiles of a house-roof; and in the third form, sometimes called *monstrosum* (deformed), the end of the frond is branched, or forked. This last variety was found by Mr. D. Dick, at St. Mary's Isle, Kireudbright, and by Mr. J. R. Kinahan, at Quin Abbey, Clare.

This Fern is found in all parts of the British Islands, on the shady sides of rocks, old walls, and hedge-banks. In the situation last named it attains the greatest height. It is not confined, however, to our country, nor even to Europe, for it is found in various parts of Asia, Jamaica, and North America.

It was known as one of our native plants to the earliest of our herbalists, for in "The seconde parte of



William Turner's herbal," published in 1568, he calls it "*English Mayden's heare*," and the woodeut leaves no doubt that it was our *Asplenium trichomanes*. He says—"the juice stayeth the heare that falleth of, and if they be fallen off, it restoreth them agayne." Many other of our old medical writers speak of this Fern as that from which *Capillaire* is made, and there is little doubt but that it would impart as much virtue to that compound as does the *Adiantum capillus veneris*, or True Maidenhair, of which it ought to be made. It has, however, still some local reputation, the Highland dames of Scotland often forming from it a tea which they administer to those who are afflicted with coughs or colds.

Gerarde is the first writer who mentions any place in England where it was native. He says—"I found it growing in a shadowy, sandy lane in Betsome, in the

parish of Southfleet, in Kent. It groweth, likewise, upon stone-walls at Her Majesty's (Queen Elizabeth's,) Palace of Richmond, and on most stone-walls of the west and north parts of England."

It will grow freely on the shady side of rockwork in the open air, but the soil must be composed only of sandy peat, old mortar, and fragments of brick in equal proportions. It can be grown in a Wardian Case, and in a greenhouse, but requires the same soil, perfect drainage, and a frequent change of air.

The best time for transplanting this Fern is in April. Those growing on a hedge-bank should be preferred for transplanting, because, unless the bricks can be taken with them, those growing on walls can scarcely be moved without a fatal injury to the roots. Those growing in the fissures of rocks are moved with quite as much difficulty and uncertainty of success as those on walls. Young plants should be preferred before old ones for removal. They should have a bell-glass turned over them for a few days after their transplanting. Plants already in cultivation may be propagated by division also in April. In dividing the tuft, a crown must be preserved to each division.

We have never raised it from seed, but we have no doubt that spores collected when ripe in August, and sown upon the surface of the soil, such as we have directed for the growth of the plants, covered with a bell-glass, and placed in a shady part of a greenhouse, or of a cold frame, would give birth to seedlings.

KEW GARDENS.

(Continued from page 52.)

THE group of beds on either side of the long walk leading up from the old conservatory, which was modernized in 1842, to the lake in front of the large conservatory, are very easy to arrange and plant properly, and they are very well planted indeed; but the soil in them is entirely exhausted, and not fit to grow flowers, without a change. The reason why they are so easy to plant is, that every group stands on its own merits, without reference to the group you left behind, or to the next in advance. This style is called "promenade gardening," and is the simplest step in the system; but no other step is better, or so good, if the groups are kept so far apart as not to seem to be part of a whole. This is a very different system from that along the bottom of the terrace-garden at the Crystal Palace; where the whole centre, or the parts embraced by the three transverse, is one continuous succession of beds in one line, and not more than four or five feet apart, along one side only of the terrace-walk. I forget now how many scores of beds are in that continuous line at Sydenham; but I well recollect there are only three kinds of plants in the whole; and two form of beds; an oblong square, with the corners and ends altered from the square, as at Kew, and at the garden of the Horticultural Society; and a circle, having the same diameter as the width of the square-bed. There is a narrow strip of blue Larkspur in the centre of all the oblong beds; and the blue line is as straight as an arrow the whole length; the rest of the bed is of *Tom Thumb*, and the circle is of Scarlet Verbena; that is, the whole centre of the garden is lined on one side with scarlet flowers, and in the middle of the band of scarlet is a strip of dark blue. You might

think extravagance could go no further in rich luxuriance of colour, and if you looked at the band only from one end, you would not be far wrong; but walk along the terrace, and you will see that the Verbenas are only four or five inches high, while the Scarlet Geraniums, on each side of them, are four or five times higher; thus cutting off the Verbenas entirely from the end view, and neutralizing their colour at every succeeding bed the whole way, so that the same effect which is now produced might be had without the Verbenas at all; therefore, the arrangement is faulty, and the Verbenas a loss.

If this arrangement had been made at Kew in the promenade flower-garden, where the beds are set down in groups, with a long interval of grass between two circular beds of Scarlet Geraniums, to each long bed of Scarlet Geraniums, one at each end of the long bed, the Verbenas would not be so entirely lost as they are at the Crystal Palace; still, they would not make each group satisfactory, because the two shades of scarlet are too near, without any agreement in the heights of the plants, or in the styles of their growth. When two beds, or two or any number of plants, do not, or cannot, agree in colour, height, and style of growth, so as to help each other, the next plan is to arrange them so as to give a good contrast, and this is done very effectually in the promenade at Kew. There is an oblong bed, with a circular bed at each end of it, in the groups at Kew, and just opposite there is a similar group; then you walk on a certain distance, and two more groups meet you, right and left, and so on all the way to the end of the promenade; but there is a blemish in every one of the groups, which detracts from the effect which is intended; that blemish is a circular bed behind each of the oblong beds, which are chiefly filled with half-starved Roses; but, fill them with what you will, you cannot make them form part of a whole. It is a conceit, and, like most conceits, helps to lower your estimation of the man, or animal, or thing produced.

Now, let us begin at the bottom of the promenade, and see what flowers there are in each group. The first two groups are on the left-hand side, and, unfortunately, there is no room for the match groups on the right, owing to some old trees coming too near; therefore, the first two groups are like two pigs, each with one ear. The first group is of *Tom Thumb* Geraniums in the oblong bed, and at each end a bed of dwarf *Yellow Calceolarias*, very good and complete. We shall say nothing of the circle for Roses behind *Tom*. The second group is a good, strong *Verbena*, a lilac flower with a pink eye, called *Parfum Madeline*, with a circle of *Calceolaria amplexicaulis* at each end of it. The third group is double, or matched on each side of the walk; the two oblong beds are of the *White Shrubland Petunia*, the best white bedder we have of the kind; the first two end circles are of the *Defiance* Verbena, and the other two *Ruben's Superb* Verbena, a shade darker than *Defiance*. This, then, is a complete group, and the colours well contrasted, the highest plant in the middle of the group, as it should be, and the arrangement is perfect of its kind.

The fourth group has the two oblongs filled with a horrid kind of *Calceolaria*, a little dark brown, trumpery concern, which ought to have been burnt, to keep off witches and bad spells, years ago. Two *Heliotropes* at one end, and two blue *Campanula carpatia*, which, by-the-by, does not match the *Heliotrope*, making the group but so-so. How different, if the *Hamlet* Verbena was in place of the *carpatia*! The two ends would then retrieve the insignificance of the little, brown, stupid *Calceolaria* in the middle.

By-the-by, some one sent me a batch of this very brown *Calceolaria* in eighteen hundred and something; I planted them alternately with dwarf *China Roses*,

round a dial, or a pedestal; that is, three little beds of Roses, and three of *Calceolarias* aforesaid; but, as soon as I saw the dirty little things, I pulled every one of them up and threw them away, so that I cannot bear the blame of the kind being yet at Kew. However, perhaps they are botanically interesting, and if so, I have nothing to say against them on that score.

Between the fourth and fifth groups a walk crosses the promenade, and in the angles of the crossings are two *Flower of the Day* Geraniums, and two *Ageratums*, very good, very proper, and very distinct from the main groups. The fifth group has the two oblongs planted with *Calceolaria angustifolia*, and the four circles, two at each end, with one kind of *Verbena*, a French one, called *Brilliant de Vaise*, a large, bright scarlet flower. This group, therefore, is quite perfect in all the parts.

Group sixth, the two oblongs with *Ageratum*, two circles with *Variegated Alyssum*, and the other two circles with *Verbena Eclipse*. The two ends of this group are, therefore, in direct opposition.

Group seven, two oblong beds *Shrubland White Petunia* again, with four kinds of *Purple Verbenas* in the four end circles. If the four purples were new seedlings, I would call this the experimental group, to prove which was the best purple *Verbena*; but no doubt they were "proved" before this trial, and the four match to a tee. The names are *Royal Purple*, *André*, *Purple King*, and *Matchless*. *André* was in full bloom, and the others were all but done for the season; therefore, *André* is the best purple *Verbena* for Kew, but it might not be so at Surbiton. In the terrace garden, in front of the large conservatory, this same *André* is put in competition with other purples, and it rivals them all.

Group eight was planted with *Scarlet Geranium Punch*, in the two oblong beds; two of the circles were with *White Campanula carpatia*, and the other two circles *Variegated Ageratum*; therefore, the low white *Campanula* was badly matched by a tall variegated plant.

Group eight has no claims to good match-making, but *Punch* was so very good, and such an old friend, from a good match by your humble servant, that I could not be hard on such a group, which is, or was, the last in that direction.

From the top of the promenade, we turn to the right for the terrace-garden, and, before we reach it, we pass another group, which, being in the same style as the last, I shall call number nine. The two oblong beds are planted with *Petunia Gem*, a kind with the aspect of *Shrubland Rose*, but with a grey eye. The four circles were of *Gazania uniflora*. These four were the most perfect flower-beds I ever saw. You could not tell one of them from the other, by an extra leaf or flower, or by a greater or less height or fulness. If the four came out of the same mould they could not be more perfect. Old plants, and very poor soil, ought to make this a good bedder anywhere; but good, fresh soil makes it run to leaf and shoot too much, and plants of it, from spring cuttings, in a wet summer, the same.

We now reach the terrace-garden, which is in two separate parts. A walk from the front door of the conservatory divides it into two parts on the side of the lake, and another walk from the opposite front divides the American Garden, also into two parts, but each part on either side of the house is a repetition of the other part. This style of terrace-garden is the easiest to read of, there can be no intricacy about the planting, —and nothing in the arrangement of the colours, or heights of the plants, which would not tell on the eye at the first glance, just as easily as you could see if a pair of horses were of the same colour, same breed, same height, and otherwise matched perfectly. If any two of the members were placed, or had grown the wrong way; if the two ears, for instance, were back

foremost, it would make the head look odd. Yet the horse might be as strong, and hear just as well as if the ears were as usual. Now, that is exactly the way with terrace-gardens in two parts, the one being a reflex of the other. You can see, in a moment, if you know the thing, as well as you did the horses, if one bed is out of place, if one ear is longer, or one plant taller than the other. A black eye, and a red eye, would look as you know they would, and beds look just as suspicious if they come out of the common course of high art and management; and so with every plant, and bed, and flower, in the largest garden in the world. First, find out the index by which to read a flower-garden, and the difficulty of understanding it does not lie in the extent, but in the part of the language, and the grammar and the spelling being not according to our language, and the way of putting it together.

When I meet with a garden which is all Greek, I cannot make it out, and I say nothing about it; but the terrace-garden at Kew is plain English. It has been in good bloom in July and August, but by the time I called it was much on the decline, many of the beds being entirely out of bloom for the season. The first half of it is planted thus—a bed of *Unique* Geranium, and one of the little, dirty, brown *Calceolaria* at the north end; one bed of *Ariosto* *Verbena*, a very good purple; four match beds of *Mont Blanc* *Verbena*, also very good; two beds of the *Garland* *Verbena*, a blush-white, with a stain in the eye, a very good, light bedder, for a light, poor soil; two *Verbena* beds of *Hamlet*, the right grey to mix in equal quantities with *Heliotrope*, so as to get three times the quantity of flowers from a *Heliotrope* bed; two beds of *Calceolaria Angustifolia*; four beds of *Defiance* *Verbena*, very good; two beds of *Calceolaria Frostii*, entirely over for the season by the 20th of September, therefore not fit for bedding at Kew; and one bed of *Emma* *Verbena*, the match bed to *Ariosto*.

In the second or south half of the terrace the colours are reversed, thus, beginning and ending with the same beds, for *Ariosto* say *Lobelia ramosoides*; for two *Garland* *Verbena*, say two *Calceolaria Frostii*; for white, say *Tom Thumb*; for *Hamlet*, say two *Verbena Hippodamia*, a light blush, with a stained eye; then *André* *Verbena* in perfect bloom, and opposite to it *Matchless*, about as dark as *Emma*, all but done for the season; two *Purple King* *Verbena*, all over also; and two *Frogmore* *Scarlets*, to correspond with *Unique* and brown *Calceolaria*. We have an attempt at two shot-silk beds at the south end; and here the old *Scarlet Variegated Geranium* is labelled *Mangle's Variegated!!!* and with it is an old lilac variegated.

D. BEATON.

HOLLYHOCKS.—As the Hollyhock is now become a general favourite, admired for its tall, stately stems, thickly studded with rosette-like flowers of various colours, we annex a list of the best sorts, promising that it is of the easiest cultivation, either by sowing the seeds in the open ground, in April, for general assortment, or by increasing the more select and choice sorts by offsets or cuttings in spring. *Beauty of Cheshunt*—rose; extra fine. *Emperor*—deep rose; large, bold flower; fine form and spike. *Eva*—delicate light peach; large, smooth, and fine. *Emily*—transparent blush; smooth, full, and fine. *Eugenio*—saffron, shaded; fine form. *Felicia*—amethyst; fine form; close spike. *Glory of Cheshunt*—bright yellow. *Hope*—light crimson-rose; very fine. *Honble. Mrs. Ashley*—bright rosy-pink; large, close, fine spike; extra fine. *Lady Braybrooke*—rosy-crimson; fine. *Lizzy*—clear peach; very large, smooth, and finely formed; a magnificent flower; extra fine. *Lemon Queen*—bright lemon, new shade of colour. *Mrs. Hooper*—blush; dark chocolate

at the base; very attractive. *Mrs. Blackwood*—French-white; large and fine. *Napoleon*—mottled-white and purple; novel and fine. *Orestes*—rosy-erimson; extra fine and large. *Pourpre de Tyre*—rich dark purple; fine. *Sir David Wedderburn*—dark maroon; fine. *Sulphur Queen*—sulphur; large and extra fine. *White Globe*—white; fine shape, large, and close. *Yellow Model*—large yellow; very fine. *Queen of Crimson*—bright crimson; large. *Black Prince*—black. *Crimson King*—very bright, rich crimson; small and compact. *Duchess of Sutherland*—bright rose, with a silvery tint.

SAVING OLD GERANIUMS.

I WENT over, recently, to see Mr. Walton's new propagating ease, of which he is as confident as at first; but he says, which is quite true, that it is of no use to fight against Nature, by forcing her with bottom-heat late in the autumn, when all hardy and half-hardy plants are naturally going to rest.

A hotbed is a good thing, however, at this season, for those who wish to keep old bedding-plants in a small compass, more particularly the different breeds of Geraniums which we grow in the borders, as, with a nice dry heat, at least as dry as is possible from a hotbed, all the Geranium kinds may be cut in very close indeed, be potted in small pots, be put into the frame or pit for a month or five weeks, and by that time the roots would be well spread in the ball, and the fresh start from the bony skeleton beginning just to look green all over the hard branches. At that stage, it would be advisable to cease the top-heat by tilting the lights; but the pots might remain plunged till the roots began to get out through the bottom. Any degree, from 70° to 80°, would do for the bottom-heat, and from 60° to 65° for the top, all this time, and something very dry and sweet ought to be put for plunging the pots, and for keeping down the bad smell, which is the most dangerous thing on earth for plants, and most so at this season. But who wants to go to all this bother, when cuttings can be so easily got to root in September? Who? indeed. I can tell who had to do all this, and more of it, just this time fifteen years back. On the 10th of October, 1840, the first cutting for the next year was put in at Shrubland Park, and in May and June, 1841, 34,000 plants were planted out, besides seedlings. It was up-hill work all that November; but the secret lay in getting up, and potting, or boxing, every morsel from the beds which had a live root to it, and working them off just as here described. Dry sawdust was the plunging material, dung and leaves for bottom-heat, and two-inch water-pipes for top-heat; but a very light pit and frame had to be used to the extent of thirty-six lights. If I remember right, we had hotbeds of all sorts; but I recollect, very well, that the great aim was to get as many cuttings into a pot, and as many pots into a frame as possible, and the same with old rooted plants.

Owing to one thing or another, similar urgencies occur every year of our lives, only we do not often hear of them, because few like to tell when they get into a fix of this kind. One of our readers, in Ireland, however, had the courage, the other day, to tell us that his turn came round at last; that he is as bad off as I was in 1840; that he made a hotbed, and that he wished to give a start to such and such bedding-plants, which he was obliged to lift and put into pots, because he had no cuttings of them, and so forth. He seemed, also, to have a siding to making cuttings of several things at this late season, as, by the help of the hotbed, he might work against Nature with impunity. Well; it is a dangerous experiment for amateurs. When one has plenty good and clever young gardeners at his beck and call, and

has only to say do so and so, and they do it accordingly, such experiments are no experiments at all—nothing but routine; but I agree with Mr. Walton, that it is of “no use” to set hotbeds, or new propagating eases, to work after the end of September with the above “limitation.”

I saw a *Petunia* in Mr. Walton's greenhouse, the very finest house *Petunia* I ever saw. It is a plain purple, and it was the size and shape of it which astonished me; but it must be recollected that I am no judge of the shapes of flowers. I never can see, nor conceive, a good flower to be of a bad shape. I could not find out the name of this *Petunia*; but Mr. Walton told me he had it from Mr. Jackson, at Kingston; and his gardener told me that it was a seedling raised by Mr. Jackson himself, which I must learn, as every one who has a greenhouse ought to have a couple of them; but for a bed I should think the flowers are too big. They are like wind instruments, and if the wind got into the wrong end, it might blow beds and all right over the garden fence.

What I went for more particularly, was to take up all Mr. Walton's old *Tom Thumbs* which he intended to throw away. I am going to try the following experiment on them this winter, and, if I succeed, it will be a good hit for some people. I intend to cut off every leaf of these old *Tom Thumbs*, but on no account to make a wound in the bark anywhere, not even in the roots, for I lifted them myself, and the gardener is to bring them over to me this afternoon, as the weather is so mild. I shall lay the leafless plants in by the heels for a month, or till the frost comes, just as we lay Broccoli in at this season, the plants nearly lying on the ground, with the heads to the north, then a mat or two thrown loosely over them will keep the frost from them till I can arrange them for their winter quarters. Who knows but they may lay there till Christmas. Meantime, I shall spread out some good earth in a shed, to have it half dry, and I shall have narrow, rough boxes, but pots or hampers would do. I shall put in the roots just as if I were potting them, and I shall give a little water to settle the earth about the roots, then let the boxes drain, and after that, I shall put one inch of dry, dusty, small ashes over the whole surface of the boxes, to keep down the damp, and place the boxes on bricks down in the cellar, which is as dry as a bone. I shall examine them once a month, to see if any damp or black specks appear on the long, uncut shoots, and as soon as the top of the shoots make two or three leaves, say towards the end of February, I shall stop them by cutting off an inch or so, and that must be done when the weather is dry and windy, when I shall open ventilators in the front and back of the house, which give me a current of air all the summer through the cellar.

My object is this, to see how how late *Tom Thumbs*, as being the most tender and most difficult to keep in winter, may be kept out in the autumn; and as it would be dangerous to cut them down at that late season, where no greenhouse or hotbed is at hand to start them afresh, the wounds at the cut parts would be sure to fester, and difficult to cure. I shall avoid such wounds altogether; if the roots can be kept from being either too dry or too wet, I see no reason why they should not be as healthy and fresh as they are at this moment; and I could get lots of cuttings in March to strike in the first hotbed, and still have much bigger plants than by any other plan, short of potting and Vinerics, or other warm houses to keep them; and I am perfectly convinced that the older any kind of Scarlet Geranium is, the better it will flower in a bed; but young plants do better in vases, where they must, of necessity, be less fed at the roots; also, the older they are, the easier they will keep, because the stems are more woody, and they will never get hide-bound, as you

often see them when they are kept dry in cellars, without any earth, or provision for keeping the roots plump and fresh. The whole of the idea is founded on Harry Moore's system of having them in the same pots from year to year. My *Lady Caroline* Geranium is now, perhaps, the oldest pot-plant Geranium in the kingdom, and it is now in a less pot than it occupied seven years since. We must never lose sight of this great fact, that if you stint a young Geranium, you may as well stint your soldiers, and expect them to beat the Russians. It is as natural for young Geraniums and most young plants to require good feeding as it is to young animals; but when plants get to be of full age, it is surprising with how little they can be kept in perfect health; as any one may learn by a visit to the Kew Gardens, where some woody plants, which are very difficult to keep for the first seven years from the seed, may be seen in the utmost health, after being twenty and thirty years, and upwards, in less pots than they were in many years ago; so that there is, now, no question at all as to the fact; the only question is, are we willing to take advantage of it?

I cannot help thinking, that after the brilliant display along the terrace-walks and the fountain-basins at the Crystal Palace, people will get more into the way of having such things at home in their own gardens. But all cannot have marble vases; no, nor compo vases either; but painted, or even coloured, pots will do just as well; and although young plants do better in vases, old ones, to a certainty, do better in pots and tubs. Why, there are some *Tom Thumbs* at Bank Grove, near Kingston here, the seat of W. Byam Martin, Esq., which require the united strength of four or six men to lift one plant of them on a barrow. Two of such plants, near the entrance to a house, or garden, or summer-house, would tell more to a stranger's eye than the two best beds of them at the Crystal Palace. Therefore and altogether, any means by which the great bulk of our people could manage to get once into a good stock of such old plants, is well worth trying for. Let any one, therefore, choose any method he may think best to attain this end: so it be a cheap and sure one, it matters not how he sets about it. My plan, or, rather, this experiment, is now before you; and, at present, it appears to me to be one of the easiest and the simplest.

LADY PLYMOUTH GERANIUM,

Or the variegated form of *Pelargonium Suaveolens*, alias *Rose-scented Geranium*. I met with another variety of this bedder in Mr. Walton's garden, and I think I have seen it once before; at all events, it is four times stronger, and ten times better, for edgings, than the dwarf one which is generally sold about London. There is not a flower worth looking at in the same section to which this belongs. The green-leaved sorts are kept for the scent, and the variegated for little beds and low edgings. There is nothing new about this variety, only that it is not in general use, and the worth of it lies in its mode of growth, which is spreading, and the plant is so much stronger than the more common one. I also met with the two kinds of *Pink Ivy-leaf Geranium*, the climber and bedder. They rather like the climbing one, as single plants in mixed borders; and I was told it flowered very well that way with them this summer; but I should think a rock-work, or a wall, was a proper place for it out-of-doors. But I have received such true and particular accounts of it, as a conservatory or greenhouse climber, that I have no desire to see it much in the pleasure-grounds. Still it might look even better than the *Ivy-leaf*, to hang round dark brown rustic baskets, and other naked wood-work of that kind. The white *Ivy-leaf* seems to want Ivy, or a moss of some dark green, to bring its effect properly.

CROCUSES.

I have just planted out a row of them thus:—*Queen Victoria*, the best pure white; *Ne plus ultra*, the best blue, and with light points; *Sir Walter Scott*, the best white with lilac bands and feathered marking; and *Large Dutch Yellow*, the best of the colour. The latter cost 1s. 6d. the 100, and the other 2s. per 100, at Mr. Jackson's. Every body ought to have the *Queen* and *Sir Walter*.

D. BEATON.

THE DUKE OF DEVONSHIRE'S VILLA AT CHISWICK.

I HAVE lived in the neighbourhood of London well on to twenty years, and have visited most of the remarkable gardens round about it, and have, indeed, seen this beautiful place once or twice on Exhibition days in the Horticultural Society's Garden, when the noble duke threw open the grounds in July to every visitor on that day. On those occasions, I saw the range of hothouses, and the beautiful flower-garden in front, but not all the grounds. Very lately, however, I had that pleasure, and was rather astonished and right well pleased with my visit. I consider the place well worth seeing. It contains many interesting objects, as my note-book testifies.

The place is so secluded from public view, and Mr. Edmonds, the gardener, is such an unassuming man, that the garden-visiting public are really unaware what a treat the sight of these gardens and pleasure-grounds afford. Many thousands, no doubt, saw them on the day above alluded to; but, I apprehend, like myself, those were too busy days, and the time allowed much too short, to see and note all the remarkable and beautiful objects the place contains. These objects I shall endeavour to describe, in order that our readers (at least that part of them who have not seen with their own eyes) may know what a beautiful place the Duke's villa is. I am not aware that it has a name, though there are many places in the country not nearly so extensive as this nameless villa that have high-sounding titles.

It is, as is well known, situated close to the celebrated Chiswick gardens; consequently, about six miles from town. The carriage road to it is called the Duke's Walk, open constantly to pedestrians. It is about a quarter-of-a-mile long, bordered on each side by an avenue of Lime trees, at the end of which we arrive at what are termed the Golden Gates. They are very handsome and profusely gilded. A very civil porter opened the gates to admit me, and kindly directed me to Mr. Edmonds' house. The carriage drive inside is spacious, and bounded on each side by lofty trees. There is a foot-path on the side next the gardens, with a lofty Hornbeam hedge on the other side. The branches of the trees meet the hedge trees, and form a beautiful, shady vista, very pleasant in hot weather. About half way down this avenue there is an opening through it into the gardens. As these were what I wanted to see, I turned out of the shady walk. I soon met with Mr. Edmonds, and he very kindly shewed me every thing worth seeing. In general, gardeners are kind to each other, though the rule, like all other rules, is not without exception. Happily, it was not the case here. No gardener I ever met with in all my travels was more courteous.

The road we took brought us to the front of the long range of hothouses, 330 feet long. The centre is a greenhouse, with a small stove for exotics at each end. The centre of the greenhouse has a circular projection. All the houses were undergoing a thorough repair; the old-fashioned small glass had been taken out, and long squares of the best glass put in. The garden, consequently, was crowded with strange workmen, such as carpenters, bricklayers, glaziers, painters, and white-

smiths. The latter were putting up a new hot-water apparatus (the houses hitherto had been heated by common flues), and double rows of four-inch pipes. The arrangement of this extensive greenhouse is this—A broad border at the back, a walk in front of that, and next the front windows two flagged platforms, to hold plants in pots; the one next the wall a trifle lower than the other. It must take an immense number of plants to furnish these two long platforms. In the border, there are planted out in the soil a great number of fine bushes of *Camellias*, well set with buds, *Rhododendron arboreum*, *Magnolias*, *Acacias*, and other conservatory plants. The supporting pillars are clothed with climbing plants, the loveliest of which is, without doubt, the *Acacia pubescens*, with its beautifully fine foliage, and long racemes of bright, orange-coloured flowers. When all these are in bloom, in early spring, the house must be exceedingly gay. There is a noble terrace-walk the entire length of the houses, and in front of that is the unique flower-garden. The beds are generally large, hence, each forms a good mass of colour. The garden forms the half of an immense circle, with a broad walk directly across it, leading to the circular entrance of the greenhouse. On each side of this walk is an avenue of the smooth *Acacia Robinia inermis*—these are lofty standards formed by grafting this species upon the common *Acacia Robinia pseudo-acacia*. There is a plantation round the flower-garden, and again in front of it is a half-circle of the *Acacia*. As this is certainly as handsome a standard tree as any I know, I think it a pity that part of the trees in the plantation are not cut down to show them off distinctly in the foreground. I have been informed, this tree, grown in this form, is very common in Italy; and as this is an Italian villa they are quite in unison. I think it rather a matter to be surprised at that this beautiful tree is not more planted in villa gardens. With regard to the inhabitants of the beds I can say but little, I was unfortunately too late to see them in bloom.

T. APPLEBY.

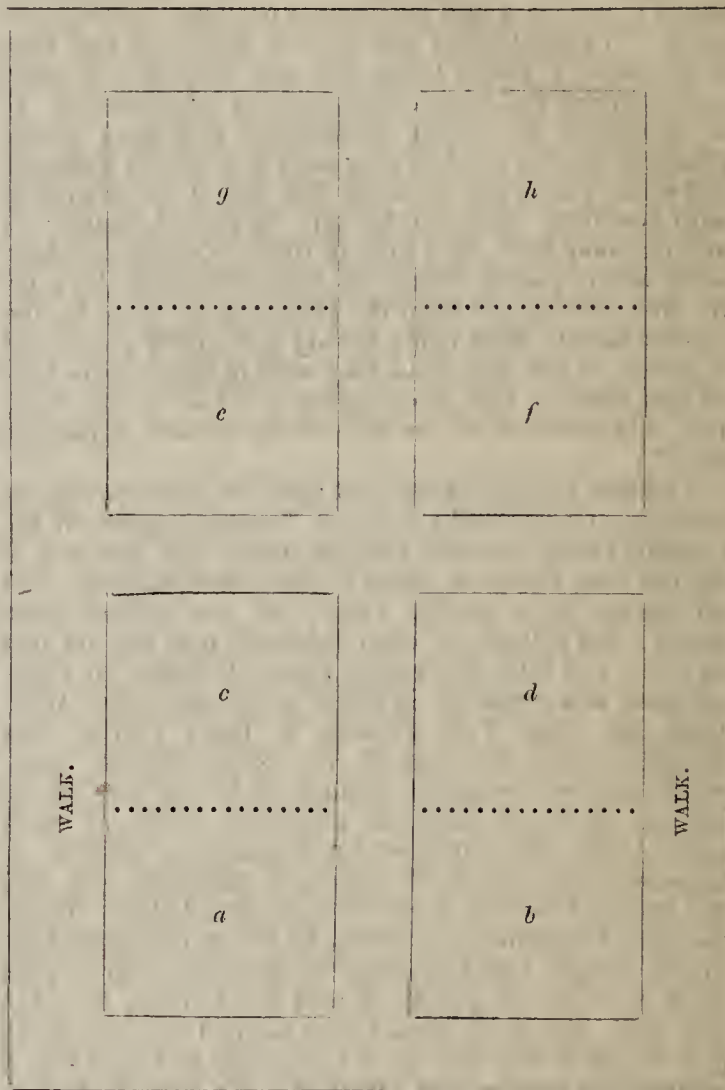
(To be continued.)

GARDENING FOR THE MANY.—NOVEMBER.

FRUIT-TREES of all kinds ought to be planted now, and many kinds might be pruned. *Shrubs* of all kinds may also be planted where wanted, and any other alteration proceeded with that might be required. *Turf* can now be taken up and relaid where uneven, and, what is equally important, it can be rolled up and laid aside for a longer time at this season, without injury, than in any other; not that it is prudent to let it lie so, but often necessity compels it to be so. *Hedges* and *fences* can also be seen to; and, where necessary, new garden ground taken in; or, in fact, many things may be done now, as well to expedite work at a future time, as also it being the best season to do it; and though there is little can be said in detail as wanting doing in the Kitchen-garden way, if everything was done last month that was directed to be done there, still much may be done, in a general way, to maintain a cheerful aspect in the garden; and healthy, good crops, are at all times agreeable objects to look upon, be it a house of grapes, a field of corn, or a bed of cabbages.

a.—A little short dung, laid carefully between the rows of *Strawberries*, in the shape of a coating of that material, will be of great service; and, if it be well rotted, its appearance is not unsightly. It will do no harm amongst the *Raspberries* either; and in March it can be slightly pointed in, the rains of winter having washed its juices down to the roots in the interim; and as the ground suitable for *Strawberries* is generally stiff, there is no fear of

its descending too far. Nothing can be done to the *Strawberry-plants* save cutting away any runners that may not have been done before; but the leaves must not be cut, and only the old *Raspberry* canes removed, until February.



b.—This being all winter crops, and in a progressive state, requires no particular directions here; only, if there be a variety of *Brocoli* planted, it would be well to take notes of the periods at which they come into use, as well as other particulars regarding them; and those only which are really good ought to be sown another season. Should very severe weather set in by the end of the month, be sure to look round beforehand, and cut all the *Cape Brocoli* that is ready for use, and hang it up in a damp place, where it will keep for several days without injury, while a severe frost renders it useless.

c.—The cutting down and clearing of the *Asparagus* beds being done last month, they require nothing more this; but *Sea-kale* may be now begun to force, if there be plants to spare, i.e., if there be a quantity that the cultivator thinks he can do without another year, and a moderate warm place be at liberty; taking up a few and planting them in deep pots or boxes, and placing them in this warm place, will produce much earlier *Sea-kale* than can be had in the open ground by covering up with fermenting materials. It is easy to find a place where this can be done, only it must be in darkness, which is easily accomplished by inverting another pot or box over the one the plants are in. Where this plan is not expedient, the old mode of covering the individual plants over with pots or boxes, and then covering the whole ground and all with some gentle fermenting material, as leaves, or leaves and dung

mixed, for the plants will not endure much heat at this early season. If dung alone has to be used, be sure and not use it too liberally; better only partially cover the pots, if it heats violently; if not, add more as required.

d.—*Celery* requires but little attention this month, save that the latest may want some earthing-up. Level down and dig the ground from which the early *Celery* has been taken up, in order that it may have the benefit of what frosts we may have; for that purpose, autumn diggings may be deep.

e.—This being late *Brocoli* planted between rows of *Peas*, will now begin to look a little more uniform, and since the removal of the *Peas* have attained a more sturdy growth. Nothing is necessary, save to take away any dead or unsightly leaves, until a later period, when something must be done to enable them to stand the winter better. Laying them down on one side is a very good plan; but next month will be soon enough for that.

f.—This being planted with *Cabbage-plants*, in part, it will be prudent to look that the slugs do not eat them off at this season. Treading the ground firm around the plant when it is dry, and hand-picking off the marauders a few times, with now and then dustings of lime, will keep them down. Dig any other vacant ground that may be set at liberty, adding dung as may be required.

g.—The *Carrots* being stored away will leave a space at liberty for future operations; if, therefore, the position of this plot be a good one, a row or two of *Peas* might be put in about the middle of the month, or they might be sown on the border at that time; at all events, let the ground be dug or ridged as early as possible, and on the approach of severe weather, a few roots of *Beet* or *Parsnips* might be taken up for use during its continuance. The same might be said of *Celery*, keeping it, as well as the roots, in some cool place. Covered over with sand or earth, it will keep fresh for several days.

h.—This being mostly *Turnips*, *Endive*, and *Lettuce*, the first-named requires no comment. *Endive*, however, will want blanching, by covering the heads over with a board, or, what is better, a basin, or heavy saucer. This being done some days, the plants might be taken up with a ball, and carried to some sheltered place for use in bad weather, when it will keep some time. *Lettuce* will not endure such close tying, but it will bear removal to a sheltered place.

KITCHEN-GARDEN BORDERS.—A sheltered place must be selected for planting a bed of *Cauliflower-plants*, which must be done by the 1st of the month. Hooping over with sticks, and some mats or oil-cloth thrown over, will protect the plants very much in winter. Use some lime in preparing the ground, and give a sharp look-out for slugs, which prey very much on this article. Sow a row or two of *Peas* on a nice south border, and, if needs be, the same of *Broad Beans*; about the middle will do for both. Examine the crops of *Lettuce*, beds of *Seedling Cabbages*, *American Cress*, and other things; and where the worms or slugs have done any damage, let it be at once repaired. A few *Potatoes* may also be planted this month; and all *Herbs*, or other permanent crops, will want more or less dressing now; even the *Edgings* may be thoroughly put in repair, and everything else done that is necessary to make a good appearance; always keeping in mind that the borders are the most conspicuous parts of the garden, and, consequently, a more than ordinary care is necessary to their well-being.

FRUIT-TREES.—The *Apple*, *Pear*, and other trees may be pruned as soon as the leaf is so far ripened as to fall easily. *Peach-trees* had better remain until February, and also *Apricots*; but *Gooseberries*, and *Currants*, and

all hardy fruits, might be done at once; and, where wanted, new plantations might be made, or, if needs be, old fruit-trees may be cut down, prior to grafting in spring; but in the matter of *Pears*, it is not prudent to work old trees, as they often die six or eight years afterwards, or just when they are coming into bearing again.

WALKS AND EDGINGS.—This is a good time to renew both; but if the making or repairing of walks was left until much of the autumn wheeling and other rough work was done, so much the better, especially as the prevalence of leaves, &c., flying about, renders it difficult to keep up a tidy appearance in a new walk at this season, and these disorderly things are easier collected from an old walk than a new one. But the amateur will see an article on "Walks" in another place of THE COTTAGE GARDENER.

FRUIT-ROOM.—This will, of necessity, be more crowded now than at other times; but a little care in giving air on all occasions, and removing anything and everything likely to create decay, will materially assist in keeping the fruit from hastening on to a premature ripeness and consequent decay. *Pears* decay fast when once they begin; but the room they leave must be made available to the others which are too thick. Do not cover up anything, and let the room be as sweet as a dairy.

FRAME.—This being filled with such potted plants as are useful for window decoration, care must be taken to prevent damp and decay from making inroads on them. *Myrtles*, *Coronillas*, *Acacias*, *Veronicas*, and such-like hard-wooded plants, are not easily affected; but *Cinerarias*, *Geraniums*, especially the Scarlet and Variegated varieties, are very susceptible of damp; these had better, therefore, have a place in the sitting-rooms, if possible, or at least in some dry place, secure from frost. It will also now be advisable to cover up the frames at nights; and when sharp frosts set in, let the covering be of sufficient thickness to resist it.

ROCKERY.—If this had a good dressing last month, but little is wanted this, save to remove any tree-leaves, or other litter, which the autumn winds may have blown in; and any plant which seems likely to usurp more than its allotted space might be now curbed, or entirely taken out, and new ones introduced. For Rock-work, the new *Cheiranthus Marshallii* is an excellent acquisition. The compact habit of the plant (a perfect half-globe of deep, glossy green) makes it an ornament, whether in flower or not. The *Cineraria Maritima* is also useful as a white-leaved plant; but, unless the place is large, avoid fast-growing things, as *Periwinkle* and the like, as they overgrow everything else, and look bad in winter.

FLOWER-GARDEN.—The summer-flowering plants of *Geraniums*, &c., being no longer ornamental, may be at once removed, saving only some plants of shrubby *Calceolaria* and *Cuphea*, which, perchance, may stand the winter. *Fuchsias*, of course, only want cutting down, and several other things may now be subjected to the same treatment, if not done before; and several plants, as *Phloxes*, *Asters*, *Campanulas*, &c., which have outgrown their proper bounds, may be reduced to a suitable size; only, it is better not to cut away all the young outside portions, but to cut away the central part, and leave the side that is placed nearest to where the plant ought to be. This being done, some manure must be laid on the beds, and they may be then dug, it being supposed that the tree-leaves, &c., being all off by this time, and as the beds are in a conspicuous place, they must be made to look agreeable at all times. *Bulbs* may now be planted in patches where the summer-flowering plants have been removed from, and any other plants from the reserve-beds in the Kitchen-garden border brought to fill them up with, so that they may look as if stocked for winter; thick they need not be,

but the cheerful appearance a few bushy wall-flowers give in the dull months helps to augment the hopes of a brighter state of things at another time.

SHRUBBERY.—This is the best time to *plant* all deciduous trees and shrubs; and Evergreens may also be planted; but last month, or September, was better for them. Any alterations may also be proceeded with, and, in fact, anything in which trees or shrubs are concerned may be done now. If large trees are planted, be sure to secure at once, by some substantial tying; but, in a general way, great care taken with smaller trees is rewarded with a more uniform success. And one of the most important features in planting is, to have a suitable soil in which to deposit the roots. This, and care in taking up and removal, and a speedy transfer to the future abode, is of more consequence than is often supposed, even at this season, when the air is charged with moisture; while, at other times, it is of paramount consequence.

J. ROUSON.

ALLOTMENT FARMING.—NOVEMBER.

THIS is the best month in the year for *transplanting fruit-trees*, because they will, in most seasons, have produced some new roots before the commencement of severe weather, and will have partly established themselves before the rising of the sap in spring, which will assist them in making new wood the following summer, and which will be more healthy and vigorous than if planting had been deferred to the spring. The size of the hole to be made with an allowance of a foot or eighteen inches all round beyond the extension of the roots of the tree to be planted, and on no account to be twisted or cramped to get them in. The bottom of the holes to be well drained with old brickbats, lime rubbish, or rough gravel, to prevent the roots from penetrating to the subsoil, and to act as drainage at the same time. From eighteen inches to two feet of good soil will be sufficient depth for most trees. When the tree is planted, the soil should be about three inches higher than the surrounding ground, to allow for settling, to be mulched or covered with long litter or dung, which prevents heavy rains from washing away the soil, and protects the roots from the frosts of winter, and the droughts of summer, to be well watered after planting, which settles the soil about the roots. The soil most suitable for *Apple* and *Pear* trees is a strong loam with a dry bottom; for in a wet soil they become diseased and affected with canker; two feet will be sufficient depth of soil for them. *Plum* trees delight in a good, strong, loamy soil, where they attain to a large size, and produce good-flavoured fruit. The *Cherry* tree also thrives best in a good, rich, strong loam, and a dry bottom. The *Apricot*, *Peach*, and *Nectarine* require a lighter soil than the others, and about eighteen inches in depth will be sufficient. The application of liquid-manure will obviate the necessity of deep borders for all fruit-trees. *Gooseberry* trees succeed best in a rich loamy soil, in an airy situation, protected from the cold east winds of spring, which are frequently destructive to their blossoms. In pruning at this season, open the centre of the tree to the free admission of light and air, by cutting away the centre branches and the others to about ten buds, and leaving one lateral shoot as near to the origin of each main branch as possible; all suckers to be pulled or grubbed up. *Current* trees, although they are generally closely pruned by market-gardeners, much finer fruit is produced from young, vigorous wood than from short spurs. Leaf-mould may be added as a suitable compost for fruit-trees, but dung, or other such rich manures, excite the trees to an over-luxuriance, unproductive of fruit. The strong tap-roots, if any, should be pruned off at the time of planting, and the others laid out carefully. To counteract the influence of bad management, it is necessary, with any established unfruitful trees, to cut the roots with a sharp spade all round, at about three feet from the stem, which will cause them to form fruit-buds, and a mass of fibrous roots. As it is the small roots that mainly supply nourishment to the tree, it is obvious, that when large trees are to be removed, they should be taken up with the greatest

care, preserving the smallest roots, when all the branches may be retained on the tree; but if, by any accident, the roots are injured, it will be necessary to prune the head, to establish an equilibrium, or a reciprocity of action between the roots and branches.

As a slight clue to guide the cottager in the pruning of his fruit-trees, we may state that *Apricots* bear on last year's wood, and most generally on spurs. *Peaches* and *Nectarines* at the base of this year's shoots, on last year's wood, and sometimes on older wood. *Pears* and *Plums* on last year's spurs. *Apples* on the top of spurs, and, like *Pears*, produce a cluster of fruit on the tops of the branches; and *Cherries* on buds of the same year, and on spurs. All standard trees, after planting, should be securely staked, that the wind may not have sufficient power to disturb them.

To produce a cleanly and healthy appearance in the allotment, it will be necessary to pick off the dead leaves from *Brussels Sprouts*, *Savoy*s, and other winter crops, and to destroy *Slugs*, that are now very destructive amongst the Lettuces, Cauliflowers, and other vegetables, either by hand-picking, or by the frequent application of lime-dust, soot, &c. *Rhubarb*, *Sea-kale*, and *Asparagus* should have the old stems and leaves cleared away to the rubbish-heap, and their crowns covered with two or three inches thick of rotten dung. A small sowing of *Early Mazagan Beans*, and *Somerville's Omer Pacha*, *Prince Albert*, or any other good, early *Pea*, may now be made in any sheltered situation. After they vegetate they must be protected during sharp frosts with litter.

All vacant ground should now be trenched and ridged, to expose it to the pulverising and ameliorating influence of the atmosphere.

FLOWER-GARDEN.—When the garden is gay with flowers, the attraction induces attention to their wants; but when winter approaches, and the leaves are falling, an untidy appearance gradually spreads over the whole scene. The grass-plot is thickly dotted with worm-casts, flower-stalks dangling from their stakes, and rattling, like drum-sticks, with every gust of wind, and patches of withered annuals left to rot where they grew. It is a mistake to say that there is no use in sweeping away leaves as they fall, for others will soon fall again, and the labour will be thrown away; but when leaves are allowed to lie, only for a week, in showery weather, on the grass, or on the walks, they will injure the grass, and generate damp and moss on the gravel. The broom should be kept in frequent requisition to sweep off worm-casts and leaves. The flower-stalks being cut down, the grass rolled and mown for the last time, the edgings neatly cut, and all the sweepings and other vegetable refuse to be collected in a heap to rot, and by being frequently turned over, will make a good compost for another year.

The *Beds* and *Borders* may now be dug, and some rotten dung, or, what is better, leaf-mould incorporated with the soil. To produce a gay and cheerful effect in the spring, it is advisable to plant, within view from the windows of the house, *Snowdrops*, *Crocuses*, *Aconites*, *Scillas*, *Hepaticas*, *Primroses*, *Polyanthuses*, *Wallflowers*, *Hyacinths*, and *Early Tulips*. Where there is space for more, and facility of obtaining them, the *Arabis grandiflora*, *Draba aizoides*, *Dielytra spectabilis*, *Sedum oppositifolium*, *Turban Ranunculuses*, and *Anemones*, may be also planted now, which will increase the vernal beauty of the scene.

Auriculas, *Carnations*, and *Polyanthuses*, in a pit, or frame, should have a free circulation, and all the air possible in favourable weather; to be closely examined after heavy showers of rain, that every pot saturated by drip may be removed, as otherwise it is almost sure to rot the plant. As the leaves of many of what are termed Florists' flowers, are very apt, at this season, to be spotted or affected by mildew, an immediate dusting of sulphur will correct the evil.

POT PLANTS, to be kept in rooms or at the cottagers window, will require particular attention during the dull winter months. Let them always be placed as near the light as they can conveniently stand, and receive as much air as can be admitted when the weather will allow. Indeed, those persons who have no other convenience than the house to keep them in, will find that they derive great advantage from being, during fine weather in autumn, put out-of-doors in the evening, and taken in again in the morning; the night dews contributing greatly to their health and

vigour. When water is given, the soil in the pot should have the appearance of dryness, but not so much as to cause the plant to flag, and then a pretty good supply should be given; the 'drainage water to be always emptied out of the feeder or pan in which the pot stands; pump water to be avoided, unless exposed to the atmosphere for twenty-four hours, and whatever water is given, to be made about the same temperature as the room in which the plants grow. Any dust or other impurities that may collect on the leaves should be removed by means of a syringe, the rose of a watering-pot, or with a sponge.

If the sowing of *Wheat*, and the other operations recommended last month, have been delayed, they should be finished as soon as possible. The *Swedish Turnip* will now be mature, and should be taken up in dry weather, their tops and tap-roots cut off, and the bulbs stored away in some dry shed, or piled in roof-shaped heaps, on the ground, about four feet broad, and the same height, and covered with straw, where they may remain until they begin to sprout in February or March, when they should have the sprouts rubbed off, and be re-clamped. By such treatment, Swedes sown in the end of May will keep good until the same time the following year. *Mangold Wurtzel*, by the beginning of the month, will have nearly perfected their growth; then, but not before, the outer leaves may be stripped off as food for milch cows and pigs. If taken off much earlier in the season, the growth of the bulb is checked, and an inferior crop is the consequence. Towards the end of the month the crop will generally be mature, and should be taken up, cutting off the tops two or three inches from the bulb, and treated as advised for Swedes. The *Carrot* may be treated in the same manner recommended for the *Swedes* and *Mangold Wurtzel*. The leaves are relished by cows, and should be cut up along with fresh oaten straw by the chaff-cutter. The whole should be taken up with the greatest care, as slight bruises very frequently produce gangrene, that not only destroys the bulb, but also the others in its immediate neighbourhood in the heap.

WILLIAM KEANE.

THE APIARIAN'S CALENDAR.—NOVEMBER.

By J. H. Payne, Esq., Author of "The Bee-Keeper's Guide," &c.

THE requirements of the Apiary during the present and next month are but few—providing the directions given in our last calendar have been strictly attended to—beyond defending the stocks effectually against wet, and an occasional examination to see that they are so.

COTTAGERS.—Our cottagers have done pretty well with their bees this year, considering the season has not been a good one; their stocks, although but few in number, compared with former years, are good, and the honey obtained from them has been of fine quality. The system of deprivation is now become almost general amongst them, I am happy to say, and its advantages more fully appreciated. Their honey exhibited for competition at our Horticultural Meetings is highly creditable to themselves, as well as most gratifying to those who take an interest in their welfare, and who have been the means of inducing them to adopt the depriving system.

STOCKS.—From the unusual dryness of the weather, and the almost total absence of wasps, I believe the bees have been able to gather a sufficient quantity of honey to support themselves without drawing upon their store, and the Ivy, and some few late-flowering plants, will, for some time to come, afford them a little.

AMERICAN ALOES IN BLOOM.—BLUE AND YELLOW BED.—DOUBLE NASTURTIUMS BECOMING SINGLE.

I do not know whether you are aware that there are four American Aloes flowering at Salcombe this autumn. One is (*i.e.* most of the trusses), nearly in bloom, twenty-eight feet high; it is to be feared the other three will not throw

up their stamina (which alone seem to furnish colour to the flower), in consequence of the lateness of the season. These, and a number of much finer plants which have not flowered, were taken as offsets from a plant which flowered fifteen years ago. The climate at Salcombe is so mild, that Lemons, Citrons, and Oranges ripen with very little shelter in winter.

Amongst the many flower-beds described in THE COTTAGE GARDENER, I have not seen any spoken of with strong-growing, rather high plants of a distinct colour, with a floor of another colour; for instance, I have had beds of a *Yellow Calceolaria*, with a floor of *Blue Lobelia*, and they have been admired by all who have seen them.

The *Yellow Calceolaria* which I have used is different from all others which I have seen; although not flowering so early, continuing in flower very late, sending up strong shoots well clothed with leaves, the flowers breaking out from the top and the sides. I do not know its name. All my neighbours' *Calceolaria*-beds have looked seedy long ago. This flowers fresh and strong until frost.

Again. Is this anything new? A gardener in this neighbourhood, a kind old friend and instructor of mine, had a double *Nasturtium*, which turned single, seeded, and the seeds have produced dwarf plants this summer; compact little things, about ten inches in diameter, masses of flowers.—E. H. COLE, *Stokenham Vicarage*.

VEGETABLE CULTURE AND COOKERY.

THE BEAN.

THERE are few of the common garden soils in which the Bean may not be cultivated successfully; but that in which it thrives best is a strong, rich loam.

For an early crop, Beans must be sown in a warm situation, on a border on the south side of a wall, or some such situation, in the latter end of October or beginning of November; and the best sort for this purpose is the *Early Mazagan*. They must be sown in drills which are two-feet-and-a-half apart from each other, two inches deep, and at three inches distance in the drills. When the plants have grown two or three inches high, ridge the earth up to them; and if the winter prove severe, cover them with long litter. This crop will be ready for use early in June following. Another way to have an early crop, is to sow the Beans thickly in October or November, in a dry and warm situation, and protect them with a garden-frame, or mats, during the winter, and then transplant them in rows during the end of February or the beginning of March.

In the latter end of January, or beginning of February, another sowing should be made, to consist of *Longpod*, or *Johnson's Wonderful*. For these, the drills must be two-feet-and-a-half or three feet apart; the Beans four inches distant from each other, and three inches deep in the soil. When they are three or four inches high, earth them up with the hoe on both sides of the drills; and when they are in full bloom, pinch off the tops, to throw strength into the pods. This crop will be ready in June and July.

For the principal Summer crops, the *Windsor*, or, what is better, the *Taylor's Windsor*, when it can be obtained true, is the best. These should be sown in March and April, in rows fully three feet apart, and at a distance of four inches in the rows. Successive sowings, every fortnight or three weeks, will keep up a supply during June, July, and August.

When it is required to have a late Summer and Autumn supply, recourse must again be had to the *Mazagan* and *Longpod*, which should be sown at the end of June, and in July, these will come into use during August, and continue till the end of September. For these late sowings, if the winter is hot and dry, it will forward their germination considerably if they are steeped some hours in rain-water before they are sown, and afterwards occasionally watered.

All crops of Beans should be earthed-up when they are three or four inches high; and when they are in full bloom, three inches or more should be pinched off the tops, to throw the vigour of the plant into the pods. The pods should be gathered when about half-grown, as the Beans become tough and strong-tasted if allowed to attain maturity.

TO BOIL BEANS.—Let them be fresh gathered, and do not shell them till they are to be used. When shelled, throw them into boiling water which has been salted, and boil for a quarter-of-an hour to take off the acidity; change the water, and, when boiled tender, turn them out into a hot cullender to drain, and serve them hot with parsley and butter, or with plain melted butter. Beans require to be long boiled before they are tender, without which they are not properly cooked. They should always have the skins wrinkled; but even this is not a sufficient indication; and to be certain that they are thoroughly done, it is better to try them, and ascertain whether or not they are quite tender. The best accompaniment to Beans is bacon, or pickled pork.

BEAN PUDDING.—When Beans become old and too hard for boiling, an excellent pudding may be made of them, by first removing the skins, then boiling the Beans, and reducing them to a pap, in the same way as is done for peas-pudding. To this add a little pepper and salt, some cream, and the yolk of an egg; boil it an hour in a basin that will just hold it, and, when done, pour parsley and butter over it.

TO STEW BEANS.—This mode of using Beans may be advantageously adopted when they have become too old to be cooked in any other way. Boil them, and then remove the skins. Thicken some broth with a little cream, or flour and butter, add the Beans to it, and stew the whole till sufficiently done, and flavour with pepper and salt.

BEAN PURÉE.—Select good-sized Beans, and skin them; throw them into boiling water, which has been salted, for a quarter-of-an-hour, then strain them, and put them into cold water to preserve them green; strain them a second time; put a piece of butter into a saucepan, with salt, pepper, and a spoonful of flour; add the Beans, and moisten them with broth, or water, to which put a bunch of parsley and chives. Let them cook, and, when done, pass through a sieve to make a purée, to which add a little butter, and serve.

BEANS A LA MACEDOINE.—Put into a saucepan some parsley, chives, and mushrooms, chopped fine, and a piece of butter, and a little flour, and set it on the fire; pour in some broth and some white wine, adding a bunch of parsley, chives, and savory. Let them boil over a slow fire; then put in three bottoms of artichokes, boiled a quarter-of-an-hour in water, and cut into small dice. Add a quart of young Beans, boiled a quarter-of-an-hour in water, and skimmed; let them stew, adding seasoning, salt and pepper; take out the herbs, and serve with sauce.

BEANS A LA BOURGEOISE.—Put the Beans into a saucepan with butter, a bunch of parsley, chives, and a little savory. Set them over the fire, and add a little flour, a little sugar, and pour in some broth. When done, add a thickening of the yolks of eggs, with a little milk, and serve.

BEANS A LA POULETTE.—Take three pints of small, tender Beans, remove the tops, and boil them till they are tender; put a little salt into the water, and strain them. Put a good piece of butter into a saucepan, mixed with two dessert spoonfuls of flour, salt, pepper, nutmeg, and a little sugar. Add the Beans, moistened with a little water; when they begin to boil, add a thickening of the yolks of two eggs, and serve.

There was a very excellent receipt for Bean-soup, furnished by a correspondent, a few weeks ago, in this paper, which I shall take the liberty of adding to the above, by way of making the list more complete.

BEAN-SOUP.—Take about four quarts of new Windsor Beans, four leaves of garden sorrel, and boil them in plenty of water, with a piece of bacon of about two pounds. When done, take them out and pulp them through a coarse sieve; put what has been pulped into a stewpan, with sufficiency of water in which they have been boiled, to make it thick; add two spoonfuls of salt, one of powdered sugar, a teaspoonful of pepper, one sprig of tarragon, and one flower of pot-*marygold*; boil twenty minutes, and serve. Serve the bacon separately. This is economical and good.—ROGER ASHPOLE.

HOME-GROWN GERMAN ASTER SEED.

AFTER what has been stated by your correspondent, in No. 366 of your valuable Journal, confirming Mr. Beaton's statement, that *home-grown* German Aster seed may be grown equal, if not superior, to foreign, it may appear superfluous to offer any further remarks; but the importance of securing genuine seeds to the Floral public, I hope is sufficient apology for the following brief observations. As I consider the German Aster one of Nature's choicest gems, I have devoted no little time and labour to the cultivation of this favourite. Previous to 1852, I procured seeds from various sources, with indifferent results; but, in the above year, I procured a collection of *home-grown* seed from Mr. Chater, of Saffron Walden, which has fully answered my expectation; indeed, so convinced am I of their superior quality, that I have, ever since that period, grown and selected my own seed from the original stock. As a proof of their merits, I have taken them to six Floral Exhibitions held in the neighbourhood during four years, and have received five first prizes and one second. It is true, I cannot boast of many flowers over fourteen inches (although I had one plant that produced flowers over that, but not of that perfect form I like to see), yet, those shown by me this year were pronounced by all who saw them to be first-rate in all those properties which characterize perfection. As further corroborating Mr. Beaton's statement, it may be necessary to add, that Mr. Chater took first prizes for twelve German and twelve French Asters at the Brighton Exhibition held in September, open to all England, with *home-grown* seed, saved under his own inspection. I hope the above will furnish sufficient proof, that we need not resort to the continent for that which we can procure quite as good in our own land.—S. AMEX, *Saling Grove*.

P.S.—When writing the above, I forgot to mention that I procured a collection of French Asters, this year, from the same source, which have been as perfect in their class as the German, and have been the admiration of all who saw them, many of the flowers being over eighteen inches in circumference, and of perfect form. I have just collected my seed, but they do not appear so productive in this respect as their relatives.

THE APHIS, OR PLANT-LOUSE.

HAVING noticed, in various papers, an account of the "plague of flies" having made its appearance pretty generally throughout the country, I beg permission, through the medium of your journal, to make a few observations upon it.

This fly is the perfect, or winged insect of the larva of a species of aphid (a genus known by the name of "smother fly," "green fly," or "plant louse,") which infests various kinds of vegetation, and usually visits us in greater or smaller numbers at this season of the year. On referring to a work I published, some years ago, on Insects, I find it is there stated, that in September, 1819, these pests visited us in clouds, covering almost every thing with which they came in contact. According to Reaumur's account of this insect, "one single aphid may, in five generations, be the progenitor of 5,900,900,000 descendants, and it is supposed that in one year there are twenty generations." He also observes that, at the time of their emigration, "these great enemies of the world are sometimes so numerous as to darken the air." Perhaps it may be instructive to some to know that it is not as the perfect or winged insect that it is injurious to vegetation, but only when it is in the larva state; and that, after it becomes transformed into the winged state, it only flies about for a very short time in search of a place to establish its progeny, which it brings forth alive, and deposits them on various plants, and then dies.* Some species, at this larva state, deposit their ova upon spurs and branches of trees and shrubs, and issue forth in the spring, and feed upon the bursting buds; others, after feeding awhile, retire into various places of concealment, and lie dormant until reanimated by the reviving influence of spring, when they resume their ravages. Gardeners and others would now do well to look to their various plants, and use means for their eradica-

* It is not quite correct to call the wingless Aphis the larva. It is a perfect female, and produces live young ones. After the female acquires wings she lays eggs, instead of producing a live progeny.—Ed. C. G.

tion. In localities visited by these emigrators, myriads of them will be found, especially on the foliage of Peaches and Nectarines; and it would be advisable to remove all matured or ripened leaves with the insects upon them, and burn or otherwise destroy them. It would be well then to wash the trees over with the usual preparations employed for the destruction of this insect.

There is a notion entertained by some, that these insects are brought over hither by east winds in the spring; but it will be seen, from the foregoing remarks, that such a notion is erroneous; for it is certain that no winged aphid appears either on plants or trees in the spring; and it is equally certain that the wind could not carry eggs or the immature insect to any great distance.—JOSHUA MAJOR, *Knoshtorpe, near Leeds.*

QUERIES AND ANSWERS.

GARDENING.

GARDENING IN TIPPERARY.—FUCHSIA CUTTINGS.

"The summer here (Tipperary) was so moist that everything out-of-doors grew very much, and on fine weather coming in September, and continuing till the 10th of October, the garden became gay with flowers, and I was unwilling to lift them for potting, or to take cuttings till very late. The weather has been fine, with some rain at night, and hot days till the 11th., when it blew and rained, and became cold. There has been no frost. *Dahlias, Hollyhocks, Fuchsias, Heliotropes, &c.*, still flowering. I have, however, potted all my Scarlet Geraniums, and intend to keep them dry in pots all winter in the house. Out of the house, I have only a small frame, and the difficulty is to keep things in it from damping, when the winter is wet, and the sashes cannot be opened to let in the air. I made a little hotbed of stable dung, on which I plunged pots in earth, and covered them with hand-lights. Some cuttings of *Geraniums* have struck, and some have decayed, getting black at the bottom, and the black spreading upwards, without striking; some remain sound, but make no roots. The cut is made slanting, just below a joint, and put against the side of the pot. Can you give me an idea why these failed? *Petunia* cuttings seemed to strike and grow very easily. *Calceolarias* have struck, but the leaves all turn nearly black, and when they are moved from the hotbed to the frame, I doubt whether they will grow. Should the leaves turn black? and should I cut them off? should I give them much air in the frame, and any water? I almost think not the latter, as the climate is so damp the earth and sand will absorb moisture.

"I have a *Cuphea* so covered with bloom, in the open border, that I have not potted it yet. I suppose I must pot it, as it could not stand the winter. Must I cut the flower-stems off before I pot it? and should I put the pot on the hotbed, as it is so late? The COTTAGE GARDENERS' DICTIONARY says, cuttings in spring—Can I not strike them now? There could not be any cuttings got on my shrub except with flowers on. I have one *Salvia patens* still flowering; must I cut it down and pot the old root? I have made some cuttings, but the wood seems so hard, I doubt whether they will strike root.

"Several cuttings of a *Banksian Rose* have a collar at the end, and some have very small roots, I think, coming. Must I leave them in the hotbed? and if the hotbed gets quite cold, which it will do in this wet weather, being a small one, and has to be renewed, may I safely leave the pots in the earth on the new bed? The earth is on branches, and I can take out the dung and put in fresh; or will they grow now in the cold frame?

"I have some very good *Fuchsias*, flowering in pots, from cuttings I brought last autumn from the north of England. Some that I have turned out have the roots so matted that the earth and drainage crocks cannot be shaken out, and they stand just as if they were in a pot. Should I leave them so for the winter, giving very little water? or repot them now, cutting off most of the roots? With one or two commoner ones I tried pulling out the crocks and earth, and I found most of the roots dead-looking; but new, fleshy, white shoots from the roots, chiefly inside, half-an-inch, or

so, long, so that I cut off many large roots, and left apparently young roots enough to grow the plant. I potted these in smaller pots, and put them in the cold frame. I hope they will grow; but I shall not try experiments with my good ones till I hear from you.

"Is the inclosed *Cyclamen*, *Persicum*? The Dictionary says, *Persicum* is tender.—OSCAR."

[Your last question is the easiest, and we shall answer it first; the *Cyclamen* is not *Persicum*, but *Europeum*—is quite hardy, and flowers in the open borders, always in the autumn. *Salvia patens* will not root from cuttings after it makes a flower-stalk. The spring, therefore, is the proper time to increase it. The roots of it will keep in sand which is not quite dry, or too wet, better than any way; but it ought to live with you in the border—we mean the roots—especially if you put a little cone of ashes over it. Just try this plan. About the cuttings for next year—If you were in England, people would think you were crazy if you talked about putting in your stock of them after the 10th of October; by that time all our cuttings, on this side the water, are rooted, except some *Calceolarias* and all the *Fuchsias*; but they say we Englishers never did understand the Irish properly; at all events, we cannot conceive how you are to manage with them under the circumstances. Your old *Scarlets* will do very well in pots, as you propose. The cuttings of *Geraniums* which blackened at the bottom in the hotbed, did so from too much damp. Scarlet *Geranium* cuttings should never get heat, or be confined, in the autumn; and they will root in thousands, without a death, in the open borders, if they are put in from the end of July to the middle of September. The leaves of the *Calceolaria* cuttings turned black from the pungent fumes of the dung, or else from a smothering confinement. The black leaves ought to have been cut off at once. They are the most likely to do well in the frame of all your plants, as they love a cool, damp air, and not much light. Your *Cuphea* will keep in sand, just as we said about the blue *Salvia*; and it also may stand out with you after the same way. You cannot strike a single cutting of it now, if you were to try. The Dictionary's way is the only one sure chance for all amateurs with such means. The *Banksian Rose* cuttings will all do, most likely; but we would not risk any more hot-bodding till February. It is the next thing to lightning and prussic acid from now till the middle of January; they kill things instantaneously, unless one is up to the exact scale for watching them.

Your pot-bound *Fuchsias* must be as they are till the spring, and then shake all the soil from them, and disentangle the roots; but do not cut many of the roots; it is not a good plan till the plants get old and the roots are very large indeed. This is a good time to put in strong cuttings of all the *Fuchsias* to flower out-of-doors next summer. Such cuttings should be just six inches long; the place for them is where they are wanted to flower next year; the soil for them is any good, light garden soil, and five inches should be buried in the soil, leaving only one inch to show where they stand, that inch will die, as sure as fate, if the winter is hard, but some of the bottom eyes will throw up such shoots as no one can get in a pot, and then the flowers will be more brilliant, and ten times more of them than by the old way of pot-cuttings. We put in abundance of them this time last year, and none of them died. One of them, *Ricartonii*, would now be five feet high did we not train the row as a hedge, to screen other things; but such flowers we cannot describe, and no one would believe us if we did. If you wanted a hedge of *Fuchsias* round a farm, get cuttings of *Ricartonii* put in from the end of October to the new year; but the sooner they are in after the middle of October the better, and soon they will grow, and flower next year; but unless the land is very good, and newly-trenched with some well-decayed manure, you must not expect your *Fuchsias* to be more than four feet high the first year.]

OVER-LUXURIANT ROSE-SHOOTS.—PRUNING TO THE QUICK.—ROSES ON THEIR OWN ROOTS.

"I am very fond of Roses, and want advice on the following. In the months of July or August, I find, constantly, at the junction of the stock and scion there springs

up a very strong and rampant branch, crowned with a bunch of fine flowers. Now most books tell one to "stop" these gourmands at six or seven inches; but what is to be done with the branch eventually; is it to be cut clean off? If so, where?

"In cutting down an old Rose (budded) to the quick, where should it be done?"

"Do you recommend Roses on their own roots for the borders? Does not budding them on the Dog Rose impart vigour to them?—RHODON."

[Although the strong shoots flower at last, they ought not, on any account, to be allowed to do so, because, eventually, they rob all the rest of the head, which must dwindle and put the head out of shape and proportion; they should be stopped, as the books say, so as to get the sap, or strength, equally distributed, and at the winter pruning the shoots which come from the *stopped parts* are cut back according to their strength, like all other shoots in the head, or bush. When strong shoots issue from the junction of the bud and stock in old Roses, it is a sign that the upper parts are worn out, and the plant is making an effort to renew its youth. In that case, it is a good way to get rid of the old head altogether, *but only by degrees*. When a healthy, young head is seen making these low, strong shoots, stop the habit at once, by rubbing off the robbers, as we call them.]

Old Roses "cut down to the quick," means, that all the side branches are to be cut to the strong stems, and the strong stems themselves are sometimes cut down to one-half or one-third their length. At the winter pruning is the time to cut to the quick, and that may be any time from November till March. Generally, weak Roses are pruned before Christmas, and very weak ones in October; but for strong, healthy Roses, February is as good a time as any for the winter pruning.

We prefer all bush Roses on their own roots, and all standards on the Dog Rose. All the free perpetuals will grow in less prepared soil than the Dog Rose, and in such poor soil as would starve the Dog Rose.]

HOTBED FOR POTTED PLANTS.

"I am preparing a little, fresh hotbed. Would it help those potted plants that I wish to pot now, such as *Cupheas*, *Salvia patens* and *Grahamii*, and *Sultan Calceolaria*, and the *Fuchsias* (if I repot them), to put them in a hotbed with hand-lights over them for a few days?—C. G. G."

[A slight hotbed, with a layer of very dry ashes over it and under the pots, is an excellent thing for all these potted plants, and not they only, but *every plant* when repotted, at any season, is benefited by a little extra warmth at the roots to stimulate them.]

Salvia Grahamii is surely hardy enough to endure the climate of Tipperary.]

FEEDING BEES WITH BARLEY-SUGAR.

"When you speak of feeding Bees with barley-sugar, are you to simmer the barley-sugar over the fire in the same manner as recommended for the syrup? And is it too late now to feed the Bees? Mine certainly weigh 18 lbs., independent of the weight of the hive and floorboard; but I thought, perhaps, before the winter came on, I had better give them a little food, as I took away at least 12 lbs. of honey in glasses this season. My hive must be very full of bees, as they did not swarm this year on account of my giving them increased room by putting on top-glasses.—A. M. P."

[Bees are fed with barley-sugar in sticks, as it comes from the hands of the confectioner. Place six or eight sticks on the top of the hive, and cover them with a flower-pot pan, or something of the kind, that will be as high as possible air-tight. It is not too late to feed; but if A. M. P. can insure 18 lbs. of honey, feeding will be unnecessary till March, when barley-sugar may be given as directed above.]

SCARCITY OF GRAIN.

Now that the price of Wheat is very high, and every prospect of its continuance, it behoves all to be sparing in the use of it. Amongst other essential points, three or four are especially necessary for sparing the precious grain, in order to alleviate the distress which is likely to accrue from deficiency, during the sad, conflicting year of 1856; namely, "The disuse (in an extravagant point of view, at least) of *strong Drinks*," "The destruction of predatory Birds and Vermin," "The saving of Seed Corn, by planting no more than is necessary for obtaining the best of crops," and, lastly, "The growing as much Corn as possible." And to effect the latter, and add to the comforts of the humbler classes, we would observe, that since the Potato crops are as yet very precarious, and still in great demand, we would recommend all Cottage Gardeners and Allottees to plant about one-third of their plots with Wheat, combined with *early* Potatoes, and lateral crops of Turnips, Cabbage-worts, &c. By planting less than half their portions of ground with Corn, we vouch, and venture to assure them, that nearly, if not quite, or more, than the ordinary average crops of Corn now grown in the fields may be secured; together with a fair crop of *early* Potatoes, or Peas, or other late vegetables. Now that the season is advanced for sowing Wheat, as most garden ground is in better cultivation than agricultural fields, no more than a mere top-dressing, and cleansing from weeds, is at present actually necessary for the reception of the seed; and we would advise them to plant their Wheat in treble rows, two feet apart, with *single* grains, as near as circumstances will admit, dibbled at four to six inches apart in the rows, with perfect grains, though they have to draw it over by hand, leaving twelve feet spaces between the treble rows of Wheat, for about six rows of *earliest* dwarf Potatoes, or dwarf Peas, all to be forked between, both between the rows of Corn, and also for the Potatoes, in dry weather before, or during the winter, or as soon as the Wheat appears above ground; thus but little expense will be incurred, as two or three pints of seed Wheat will suffice for an acre. The Potatoes to come off in June or July; giving the Corn sufficient air to ripen it effectually; and then, without delay, the Potato ground to be sown with Turnips, or Wurtzel for pigs, or to be planted between the rows of Potatoes with Savoys or Cabbages, previously raised and forwarded on reserve ground for this purpose. When the Wheat is cut and carted, all the land may be manured with horse-droppings provided for the purpose; and afterwards the Potatoes forked up, and the Turnips or Cabbages, encouraged in growth all under one operation, thus autumn fallowing where the Wheat grew; but we would recommend no manural process for the Wheat and Potatoes on garden ground, lest they should grow too luxuriant by it, and engender disease in both. By planting the *earliest* kinds of Potatoes, either before winter, or in February or March, no fears need be entertained of their partaking of the present epidemic. Of about 1,000 bushels of our own growth, in ten different *early*-selected varieties, we can boast of not having ten diseased bushels in 1855. By judicious management, their produce may be estimated at per rod, as follows, now that Wheat and Potatoes are dear.—Half-a-peck of Wheat, value 1s. at least; one bushel of early Potatoes, 2s. 6d.; and after crops, 6d. Total value, 3s. per rod; with straw for their pigs, or for sale.—HARDY AND SON.

THE USEFUL PURPOSES TO WHICH GLASS STRUCTURES MAY BE APPLIED.—That fairy scene, the Crystal Palace of 1851, so visibly enchanting while it contained the treasures of the world, has vanished like a dream. Nevertheless, it was a great fact most suitable to the occasion and for the purposes to which it was applied. It required the genius of a London to commemorate it in pictorial representations, and to extend the principle to a thousand purposes of recreation and utility. In an inclement season of winter and spring, when the human frame requires to be composed of more than flesh and blood to resist the various and sudden vicissitudes of climate, what promenade could be more easily provided,

or more comfortably protected, than a glass structure connected with the dwelling-house. It is our object, in a few lines, to set afloat a few ideas on what we consider the many useful purposes to which such structures may be applied. A glass structure, to form a wing to each of our public hospitals, would afford to the patients the facilities of recreation and exercise without exposure to the inclemency of the weather. The same principle could be applied with advantage to all the public and private medical establishments in the country; to all the houses of the aristocratic and commercial classes; for playgrounds in connection with public or private schools; and for workshops of various descriptions it would be invaluable.

THE POULTRY CHRONICLE.

POULTRY SHOWS.

BEDFORD. November 7th and 8th. Secs., J. T. R. Allen, Esq., and F. A. Lavender, Esq. Entries close October 16th.

BIRMINGHAM. 11th to 14th of December. Sec., J. Morgan, jun., Esq. Entries close November 10th.

DURHAM AND NORTH YORKSHIRE, at Darlington, 6th and 7th of December. Sec., J. Hodgson, Esq. Entries close November 19th.

LANCASHIRE (EAST). At Colne, Oct. 31st, and Nov. 1st. Secs. Messrs. T. and E. Booth, Marsden, near Burnley. Entries close October 17th.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. Sec. R. Hawksley, jun., Esq., Southwell. Entries close November 20th.

SOUTH DURHAM AND NORTH RIDING OF YORKSHIRE. At Darlington, December 6th and 7th. Sec. Jno. Hodgson.

TAUNTON AND SOMERSET. Nov. 23rd and 24th. Sec. Wm. Buncombe, Esq., Taunton. Entries close November 3rd.

N.B.—Secretaries will oblige us by sending early copies of their lists.

A POULTRY Show, like every other competition, will excite such feelings as pride, envy, and anger, and no man should enter this or any other arena where there must be more or less of such excitement, without first weighing whether he can bear the disappointment of defeat with equanimity equal to that with which he enjoys a triumph. Every one knows how easy it is to find good winners, and how difficult to meet with good losers. Human nature is the same in everything, and we are always prone to attribute defeat to anything, rather than to the demerits of ourselves or of our pets. The importance of self, is, in every man, a too-prevailing reality, and measures affecting millions are meted by many precisely as they touch themselves. The desire to excel is common to all, but all competitors are not alike. While some few cheerfully submit to defeat, and admit they are beaten, and would consider themselves in that predicament, even though some nice point, or some old rule, might disqualify the first pen, too many others would remedy their inferiority, or want of judgment, by seeking how they can disqualify worthier opponents.

Again, while all admit, and justly admit, that nothing should pass with their knowledge that would be an infraction of the strictest honour and integrity, yet, how liable are exhibitors to forget that any charge brought against gentlemen who take on themselves the onerous duties of committee men should not be lightly entertained.

Exhibitors are too often disposed to treat a committee as though it were made up of paid servants, whose only

duty should be to listen to grievances, often imaginary, and to have unworthy motives imputed to them if they fail to satisfy complainants. Yet so far is this from being just, that it should never be forgotten that no Poultry Show is undertaken for personal profit. For the love of the pursuit, committees undertake an arduous and unthankful office, and it is not a rare event for them to make up losses from their own purses. They have cheerfully done this in many instances, and have laboured zealously for the gratification of all who are interested in the pursuit; but if they are to be tormented by those who cannot submit to be beaten, and to have their feelings sacrificed to an injurious but well-sounding sentence, who, we ask, will undertake the office?

Then, as to the exhibitors, if gentlemen of standing and high feeling are to be accused of mal-practices and deceit, they will withdraw from exhibiting.

It is yet time for those who are now introducing asperity of feeling into a kindly pursuit to pause; but, if they continue to talk and to write as if committees were dens of thieves, and exhibitors were their accomplices, they will only sacrifice the pleasure of others to their own feelings of disappointment, and will deter every man who does not choose to incur an imminent risk of being misrepresented and abused, from undertaking the troublous and troublesome office of a committee-man, and from ever filling an exhibition pen with his poultry.

Entertaining these opinions, we approach the expression of our judgment upon the conduct of the Anerley Committee, in the matter of Mr. Lewry's protest, without the slightest asperity of feeling towards them. Not losing sight of the rights of exhibitors, and of a committee's duties—for it has duties as well as immunities—we think they adopted a wrong course when they refused, or neglected, to hear Mr. Lewry personally, and the evidence he proposed to produce. We think they had no right to consider or to guess at Mr. Lewry's motives. What those motives were, signified nothing. Even a disappointed confederate is admitted as evidence in Courts of Justice, for however unworthy his motive, that is of no moment compared to the importance of establishing truth and securing the rights of the honest.

Nor do we think that Mr. Davies or any other exhibitor ought to complain if called upon to produce proof that chickens are of the age assigned, if competent and trustworthy Judges consider it doubtful. Noblemen, and other members of the turf, continually have to prove that their horses are of the age specified at the time when they are contending for the prize.

We have reason to believe that gentlemen of good standing as poultry exhibitors, were of opinion that Mr. Lewry was correct in his assertions as to Mr. Davies's chicken; and, if so, we think they should have stood forward as protesters. High position always will have an influence in facilitating such enquiries; and though the duty of protesting may be unpleasant, yet it is a duty, and those who complain as much as Mr. Lewry,

and sustain him, have not acted wisely in complaining by proxy.

We now leave the subject, but we do so with the conviction, that though it may be too late now to re-open the enquiry, yet that the discussion which has arisen in our columns will act as a wholesome check to the very fraudulent, and, we hear, very prevalent practice of showing as chicken fowls hatched in the previous year.

THE ANERLEY PROTEST.

I HAVE just read Mr. Lewry's explanation of the present state of the Anerley Protest case, and the impression left on my mind is, that Mr. Wells and the Anerley Committee have not acted fairly towards him, or kept faith with the exhibitors; and that there has been an attempt, on their part, to stifle enquiry. Whether this attempt succeeds or not remains to be proved.

I repeat, that the Anerley Committee have not kept faith with the Exhibitors, inasmuch, as having invited them to send fowls to the Show, on certain conditions and under certain rules, they themselves wilfully break those rules, by stifling an enquiry against the infringement of the most important of them. Mr. Wells may say (as indeed he does) that there was an enquiry; but I say, that such an enquiry was a mockery and a subterfuge, if Mr. Lewry had not the opportunity of being present, and of verifying the statement made in his protest. Such "Hole in the corner" enquiries are un-English, and cannot be tolerated.

I have sent my name to Mr. Lewry, and have promised him my support in this matter, for I think he has been most unfairly treated. Let those who think as I do—let every honest man who wishes to see Poultry Shows open to fair and honest competition—do the same. Let him see that gentlemen will give him every encouragement, if he prosecutes this matter with integrity; and that he has the support of all upright persons who delight only in Poultry Shows when conducted without favour and in the spirit of—FAIRPLAY.

THE BIRMINGHAM CUPS.

MAY I, through the columns of THE COTTAGE GARDENER, suggest to the Committee of the Birmingham Poultry Show, the desirableness of a further distribution of "Cups" throughout their prize-list. I mean, the offering a cup for each variety of birds, to the whole class of which a cup is now offered. That can be done, by giving cups of the value of £5 5s. each, in lieu of £10 10s. Instead of nine cups there would require twenty; viz, for

Hamburgs	4
Polish	4
Spanish	1
Dorking	2
Cochin-China	3
Game Fowl	4
Bantams	1
Pigeons	1

20

I think the competition in each class would then be greater, when a cup is known to be the prize. I also look to the difficulties under which some breeds seem to me to struggle, and I will take, for instance, the Gold Pencilled Hamburgs and White Dorkings. Now, with respect to the former, at the Birmingham Poultry Show in 1854, the cup was given to the Silver variety. At Anerley (the only large Show as yet held this year), the cup for the Pencilled variety again went to the Silver birds, and so excellent was the class in the opinion of the judges, that they termed it "a very meritorious class." No such honour was bestowed on either class of the Gold variety; consequently, we may naturally suppose, that to the Silver birds will the Birmingham Cup again be awarded. Respecting the "beautiful White Dorkings," I have never yet seen that a cup has been

awarded to them when competing with their coloured brethren. I think the plan I have proposed would be agreeable to many exhibitors; and if you can find room for my suggestion, you will oblige—A SUBSCRIBER.

Look, also, at the White Cochins. They will stand no chance against the coloured birds.

DORSETSHIRE POULTRY EXHIBITION.

THIS was held at Dorchester on the 24th and 25th instant, when the following prizes were awarded:—

A PIECE OF PLATE, VALUE £5, given by the Earl of Ilchester, Patron of the Society, to the owner of the best Pen of Cochin China Fowls, shown in Classes 7, 8, 9, 10, 11, and 12. Mr. James Crane, Tolpuddle.

A PIECE OF PLATE, VALUE £2 10s., given by John James Farquharson, Esq., President of the Society, to the Owner, being a resident in the county of Dorset, and the breeder of the best Cinnamon or Buff Cochin-China Cock, of not less than one year old. 3. Prize, Wm. Manfield, jun., Dorchester.

A PIECE OF PLATE, VALUE £2 10s., given by J. J. Farquharson, Esq., President of the Society, to the Owner, being a resident in the county of Dorset, and the breeder of the best Dorking Cock, of not less than one year old. 6. Prize, W. L. Henning, Frome.

A PIECE OF PLATE, VALUE £3, given by Sir Edward B. Baker, Bart., Vice-President of the Society, to the Owner of the two best Pens of Ducks (Aylesbury and Rouen), each Pen to contain a Drake and two Ducks only. 15. Prize, Rev. James Fellowes, Beighton Rectory. (Aylesbury.) 16. Rev. James Fellowes, Beighton Rectory. (Rouen.) Commended.—19. George Botham, Wexham Court, Bucks. (Aylesbury.) 20. George Botham, Wexham Court, Bucks. (Rouen.)

A PIECE OF PLATE, VALUE £5, given by the Lord Rivers, to the Owner of the best Pen of Game Fowls, shown in Classes 19, 20, 21, and 22. Wm. Manfield, jun., Dorchester.

A PIECE OF PLATE, VALUE £5, given by R. B. Sheridan, Esq., M.P., to the Owner of the best Pen of Spanish Fowl, shown in Classes 1 and 2. H. D. Davies, Hounslow.

A PIECE OF PLATE, VALUE £5, given by Gerard Sturt, Esq., M.P., to the Owner of the best Pen of Dorking Fowls, shown in Classes 3, 4, 5, and 6. Mrs. Henry Fookes, Whitechurch.

A PIECE OF PLATE, VALUE £5, given by Thomas Coombs, Esq., Mayor of Dorchester, for the best Pen of Bantams, shown in Classes 37, 38, and 39. J. Goodenough, Godmanstone.

A PIECE OF PLATE, VALUE £3, given by Edward Digby, Esq., for the best Pen of Spangled Hamburg Fowls, shown in Classes 23, 24, 25, and 26. Mr. Wm. Symonds, jun., Milborne St. Andrews.

A PIECE OF PLATE, VALUE £3, given by Charles Porcher, Esq., for the best Pen of PENCILLED HAMBURGS, shown in Classes 27, 28, 29, and 30. Mrs. Mills, Bisternc.

A PIECE OF PLATE, VALUE £3, given by Hastings N. Middleton, Esq., for the best Pen of BRAHMA FOOTRA FOWLS, shown in Class 13, 14, 15, and 16. H. D. Davies, Hounslow.

A PIECE OF PLATE, VALUE £3, given by Herbert Williams, Esq., for the best Pen of MALAY FOWLS, shown in Classes 17 and 18. H. Manfield, jun., Dorchester.

A PIECE OF PLATE, VALUE £3, given by the Committee, for the best Pen of POLAND FOWLS, shown in Classes 31, 32, 33, 34, 35, and 36. T. P. Edwards, Lyndhurst.

Class 1.—SPANISH.—Birds exceeding one year old.—23. First, H. D. Davies, Spring Grove House, Hounslow. 25. Second, William Plummer, Brislington. Commended.—29 and 30. John R. Rodbard, Aldwich Court, Langford, near Bristol.

Class 2.—SPANISH.—Chicken of 1855.—33. First, George W. Lock, Newport, Isle of Wight. 34. Second, William Plummer, Brislington.

Class 3.—DORKING (Coloured).—Birds exceeding one year old.—39. First, Mrs. Henry Fookes, Whitechurch. 42. Second, H. H. Davies, Hounslow. Highly Commended.—Mrs. Henry Fookes, Whitechurch. 41. Mr. Saunders, Egypt Cottage, Cowes.

Class 4.—DORKING (Coloured).—Chicken of 1855.—61. First, Robert Loder, The Beeches, Sussex. 58. Second, H. D. Davies, Hounslow. Highly Commended.—48. F. C. Henning, Dorchester. 55. William Becher, Ablington, Berks. 59. H. D. Davies, Hounslow. 70. W. L. Henning, Frome. Commended.—51. G. J. Wood, Athelhampton. 63. William Pope, Symondsburry. (An excellent class.)

Class 5.—DORKING (White).—Birds exceeding one year old.—71. First, William Symonds, jun., Milborne St. Andrew. Second prize withheld.

Class 6.—DORKING (White).—Chicken of 1855.—92. First, Mrs. Mills, Bisternc. 79. Second, Henry Bone, Avon, near Ringwood. Highly Commended.—80. Henry Bone, Avon, near Ringwood. 89 and 90. William Manfield, jun., Dorchester. Commended.—84. Mrs. Henry Fookes, Whitechurch.

Class 7.—COCHIN-CHINA (Cinnamon and Buff).—Birds exceeding one year old.—103. First, James Crane, jun., Tolpuddle. 101. Second, F. C. Steggall, Weymouth. Commended.—104. James Crane, jun., Tolpuddle.

Class 8.—COCHIN-CHINA (Cinnamon and Buff).—Chicken of 1855.—

123. First, F. C. Steggall, Weymouth. 110. Second, George Gilbert, Chedgrave, near Norwich. Highly Commended.—107. Joseph Goodenough, Godmanstone. 114. Mrs. Henry Fookes, Whitechurch. 117. John R. Rodbard, Aldwich Court. Commended.—108. I. W. Kellaway, Ryde, Isle of White. 121. James Ivall, 96, Camden Road Villas, London.

Class 9.—COCHIN-CHINA (Brown and Partridge-feathered).—Birds exceeding one year old.—124. First, Lord de Blaquiére, Woodlands.

Class 11.—COCHIN-CHINA (White).—Birds exceeding one year old.—127. Second, James H. Gandy, Old Cleve. First prize withheld.

Class 12.—COCHIN-CHINA (White).—Chicken of 1855.—133. First, John R. Rodbard, Aldwich Court. 129. Second, James H. Gandy, Old Cleve. Highly Commended.—H. D. Davies, Hounslow.

Class 13.—PENCILLED BRAHMA POOTRA.—Birds exceeding one year old.—136. First, H. H. Davies, Hounslow. 135. Second, James A. Deveuish, Rodwell, Weymouth.

Class 14.—PENCILLED BRAHMA POOTRA.—Chicken of 1855.—138 and 142. First and second, James A. Devenish, Rodwell, Weymouth.

Class 15.—LIGHT BRAHMA POOTRA.—Birds exceeding one year old.—147. Second, William Manfield, jun., Dorchester. First prize withheld.

Class 16.—LIGHT BRAHMA POOTRA.—Chicken of 1855.—154. First, H. D. Davies, Hounslow. 150. Second, J. A. Devenish, Rodwell. Highly Commended.—153. William Saunders, Egypt Cottage, Cowes. 156. J. Symes, Forston.

Class 17.—MALAY.—Birds exceeding one year old.—161. John Buncombe, Wellington. 160. Second, William Manfield, jun., Dorchester.

Class 18.—MALAY.—Chicken of 1855.—162 and 164. First and Second, William Manfield, jun., Dorchester.

Class 19.—GAME FOWL (Black, Black-breasted, and other Reds).—Birds exceeding one year old.—169. First, James Crane, jun., Tolpuddle. 173. Second, Thomas J. Ensor, Dorchester. Highly Commended.—Thomas P. Mew, West Cowes, Isle of Wight.

Class 20.—GAME FOWL (Black, Black-breasted, and other Reds).—Chicken of 1855.—181. First, William Manfield, jun., Dorchester. 174. Second, James Monsey, Norwich. Highly Commended.—180. William Manfield, jun., Dorchester. 183. Thomas J. Ensor, Dorchester.

Class 21.—GAME FOWL (Any other colour).—190. First, Thomas J. Ensor, Dorchester. 185. Second, Thomas P. Mew, West Cowes.

Class 22.—GAME FOWL (Any other colour).—Chicken of 1855.—200. First, Thomas J. Ensor, Dorchester. 191. Second, James Monsey, Norwich.

Class 23.—GOLDEN-SPANGLED HAMBURGH.—Birds exceeding one year old.—202. Second, Mrs. Henry Fookes, Whitechurch. First prize withheld.

Class 24.—GOLDEN-SPANGLED HAMBURGH.—Chicken of 1855.—206 and 205. First and Second, Rev. J. L. Fellowes, Beighton Rectory, Acle, Norfolk.

Class 25.—SILVER-SPANGLED HAMBURGH.—Birds exceeding one year old.—207. First, G. Botham, Wexham Court, Bucks. 209. Second, William Symonds, jun., Milborne St. Andrew.

Class 26.—SILVER-SPANGLED HAMBURGH.—Chicken of 1855.—214 and 213. First and Second, William Symonds, jun., Milborne St. Andrew. Commended.—212. William Symonds, jun., Milborne St. Andrew.

Class 27.—GOLDEN-PENCILLED HAMBURGH.—Birds exceeding one year old.—221. First, Thomas P. Mew, West Cowes, Isle of Wight. 222. Second, William Manfield, jun., Dorchester.

Class 28.—GOLDEN-PENCILLED HAMBURGH.—Chicken of 1855.—231. First, Mrs. Mills, Bisterne. 229. Second, William Manfield, jun., Dorchester. Commended.—223. Thomas P. Mew, West Cowes, Isle of Wight. 225 and 227. Edwin Longman, Dorchester.

Class 29.—SILVER-PENCILLED HAMBURGH.—Birds exceeding one year old.—235. Second, F. C. Henning, Dorchester. First prize withheld.

Class 30.—SILVER-PENCILLED HAMBURGH.—Chicken of 1855.—237. First, George Botham, Wexham Court, Bucks. 236. Second, Thomas P. Mew, West Cowes, Isle of Wight.

Class 31.—POLAND FOWL (Black and White Topknots).—Birds exceeding one year old.—238 and 239. First and Second, T. P. Edwards, Lyndhurst.

Class 32.—POLAND FOWL (Black and White Topknots).—241. First, T. P. Edwards, Lyndhurst. 243. Second, Mrs. Mills, Bisterne.

Class 33.—POLANDS (Golden-spangled).—Birds exceeding one year old.—244. First, Mrs. Mills, Bisterne.

Class 34.—POLANDS (Golden-spangled).—245. First, William Symonds, jun., Milborne St. Andrew. Second prize withheld.

Class 35.—POLANDS (Silver-spangled).—Birds exceeding one year old.—249. First, J. H. Gandy, Old Cleve. 250. Second, T. P. Edwards, Lyndhurst.

Class 36.—POLANDS (Silver-spangled).—Chicken of 1855.—251. First, T. P. Edwards, Lyndhurst. 253. Second, William Symonds, jun., Milborne St. Andrew.

Class 37.—BANTAMS (Gold-laced).—257. First, Joseph Goodenough, Godmanstone. 260. Second, Mr. Leno, jun., The Kennels, Harpenden, Herts. Highly Commended.—266. Casteels Cooper, Guildford, Surrey. Commended.—261. Harry Wildman, Birmingham.

Class 38.—BANTAMS (Silver-laced).—268. First, Mr. Leno, jun., The Kennels, Harpenden, Herts. 272. Second, Casteels Cooper, Guildford. Commended.—270. Harry Wildman, High-street, Birmingham.

Class 39.—BANTAMS (Black, White, or any other variety).—277. First, William Saunders, Egypt Cottage, Cowes. 273. Second, Thomas P. Mew, West Cowes, Isle of Wight. Highly Commended.—275. Thomas P. Mew, West Cowes, Isle of Wight. 279. Thomas Combs, Dorchester.

Class 40.—GESE (Of any breed).—289. First, H. D. Davies, Hounslow. 287. Second, Mrs. Henry Fookes, Whitechurch. Highly Commended.—288. Mrs. Henry Fookes, Whitechurch. Commended.—285. George H. Locke, Newport, Isle of Wight. (A most excellent class.)

Class 41.—DUCKS (Aylesbury).—300 and 301. First and Second, H. D. Davies, Hounslow. Highly Commended.—293. James H. Gandy, Old Cleve. 303. Mrs. C. Besant, Milborne St. Andrew. (Superior class.)

Class 42.—DUCKS (Rouen).—320. First, Joseph Goodenough, Godmanstone. 317. Second, James Crane, Tolpuddle. Highly Commended.—Mrs. Henry Fookes, Whitechurch. Commended.—314. William Saunders, Egypt Cottage, Cowes.

Class 43.—DUCKS (Any other variety).—324. First, James Crane, jun., Tolpuddle. 322. Second, James Charles Dale, Glanvilles Wootton. Highly Commended.—326. James Crane, jun., Tolpuddle.

Class 44.—TURKEYS (Of any breed).—330. First, William Saunders, Egypt Cottage, Cowes. 332. Second, J. R. Rodbard, Aldwich Court, Langford. Commended.—329. Mrs. Henry Fookes, Whitechurch.

TAUNTON AND SOMERSET POULTRY EXHIBITION,

To be held at Taunton, on November 23rd and 24th. The following is an epitome of the prize list.

To the following, both for adult birds and chicken, one cock and two hens of each, first and second prizes of £1, and 10s., will be awarded.

Spanish. Dorking (Coloured). Dorking (White). Cochin-China (Cinnamon and Buff). Cochin-China (Grouse and Partridge). Cochin-China (White or Black). Malays. Game (Black, Brassy-winged, Black-breasted, and other Reds). Game (Duckwings, Greys, and Blues). Game (White, Piles, and any other variety). Gold-pencilled Hamburgs. Gold-spangled Hamburgs. Silver-pencilled Hamburgs. Silver-spangled Hamburgs. Poland (Black with White Crests). Poland (Golden). Poland (Silver).

Three prizes of £1, 15s., and 10s., are offered for any other variety not comprised in the before-mentioned classes.

To the following, prizes of 10s., and 5s., are offered:—Bantams (Gold-laced). Bantams (Silver-laced). Bantams (Black). Bantams (White). Bantams (Any other variety).

To the following, prizes of £1, and 10s., are offered:—Turkeys (Of any age). Geese (Of any age). Ducks (Aylesbury). Ducks (Rouen). Ducks (Any other variety).

To Pigeons, 10s. are offered to each variety, as follows:—Carriers. Tumblers. Owls. Nuns. Turbits. Jacobins. Fantails. Trumpeters. Pouters. Barbs. Dragons. And any other variety.

SPECIAL PRIZES.—A Silver Cup, value £5, the gift of Sir P. P. F. Acland, Bart., will be awarded to the Exhibitor obtaining the greatest number of First Prizes (Pigeons excepted), and in the event of two or more Exhibitors obtaining an equal number, the decision will rest with the Committee.

A Piece of Plate, value £3 3s., the gift of H. G. Moysey Esq., will be awarded to the best Pen of Dorkings, exhibited in Classes 3, 4, 5, or 6.

A Piece of Plate, value £3 3s., will be awarded to the best Pen of Gold-pencilled Hamburgs, exhibited in Classes 21, or 22.

A Piece of Plate, value £3 3s., will be awarded to the best Pen of Game, exhibited in Classes 15, 16, 17, 18, 19, or 20.

A Piece of Plate, value £3 3s., will be awarded to the best Pen of Gold or Silver-laced Bantams.

A Piece of Plate, value £2 2s., will be awarded to the best Pen of Poland, exhibited in Classes 29, 30, 31, 32, 33, or 34.

A Piece of Plate, value £2 2s., will be awarded to the best Pen of Cochin-China, exhibited in Classes 7, 8, 9, 10, 11, or 12.

A Silver Medal will be awarded to the Exhibitor obtaining the greatest number of Prizes for Pigeons.

The Honorary Secretary is W. Buncombe, Esq., Taunton. Entries will be received as late as Nov. 10th, by paying double fees.

DUBLIN AMATEUR POULTRY SOCIETY.

This very spiritedly-conducted Society has issued a detail of the characteristics desirable in each variety of poultry, which they designate a "Proposed basis for uniformity of judgment at Exhibitions of Poultry." We purpose to publish it in our columns, with such comments as we may think needed.

The Society's Exhibition will be held on the 18th, 19th, and 20th of December. The prospectus offers first and second prizes of *one guinea*, and *half-a-guinea*, respectively, both for *adult birds* and *chicken* of 1855, of the following varieties:—

FOWLS WITH COMBS.

Spanish (Black). Spanish (White). Dorking (White). Dorking (Coloured). Shanghae or Cochin-China (Buff, Cinnamon, Grey, or White). Shanghae or Cochin-China (Black, Grouse, or Partridge). Dutch Pencilled (Bolton Greys). Dutch Pencilled (Bolton Bays). Game (Black-breasted, and other Reds). Game (Duckwings, and other Greys, White, and Piles). Mooned Pheasant Fowls (Golden). Mooned Pheasant Fowl (Silver). Irish Cuckoo (Single-combed).

For Malays, the prizes are 15s., and 7s. 6d.

For the following, the prizes are 10s., and 5s.:—Persian or Tailless. Frizzled. Sebright Bantams (Gold-laced). Sebright Bantams (Silver-laced). Bantams (Clean-legged. Assorted colours). Bantams (Feathered. Assorted colours).

FOWLS WITH CRESTS.

White-crested Black Fowl. Black-crested White. Spangled Hamburg (Golden). Spangled Hamburg (Silver). Crested White Fowl. For this last variety the first and second prizes are 15s., and 7s. 6d.

For Turkeys, Geese, and Ducks, the prizes are one guinea, and half-a-guinea. They are thus classed:—Turkeys (American). Turkeys (Norfolk, or any other breed). Geese (Improved breed). Ducks (White Aylesbury). Ducks (Rouen).

For Pigeons (best pair), of each of the following varieties, one prize of 5s. is offered:—Fantails. Carriers. Pouters or Croppers. Tumblers (Almond). Tumblers (Bald-pated). Tumblers (Mottled). Runts. Turbits. Nuns. Trumpeters. Jacobins, and Barbs.

For the best pair of Lob-eared Rabbits, 10s.

In addition, a £5 cup will be given to the best of the prize lots.

Entries will not be received after November 24th.

The Honorary Secretaries are J. R. Dombrain, Esq., 36, Leeson Street, and R. P. Williams, Esq., Dame Street, Dublin.

WATERFORD FARMING SOCIETY.

The first meeting of this Society was held in the City of Waterford, on Wednesday, the 3rd. of October, and was very successful.

The entries of stock were so much greater than the Committee at first expected, that the accommodation provided by them was soon found too small, and the grounds in front of the handsome New Court House were obtained for the display of roots and machinery, and for the performance of the band of the County Dublin Militia. The bulls, milch cows, two-year old and yearling heifers, and weanling calves, were excellent. The boars and sows of a very high order. The sheep good, and the display of *Poultry* admirable. Indeed, it was generally admitted, that for a first show it was most creditable to all concerned. The Committee and Hon. Secretary were indefatigable in their exertions on the occasion, and the Judges performed their part in the most impartial manner.

The dinner was held at the Town Hall, and was attended by nearly 100 gentlemen and farmers,—the chair being ably filled by the Earl of Huntingdon, in the absence of the President, the Marquis of Waterford; and the vice-chair by Sir Robert Joshua Paul, Bart. Several admirable speeches were made on the occasion, and a most instructive one by Captain Ball, of the County of Dublin Militia, who was a Juror at the Paris Exhibition, and expressed himself greatly

pleased with what he saw in the yards, particularly the young stock.

A handsome medal has been executed for the Society by Mr. Ottley, of Birmingham, from a design by C. N. Bolton, Esq., of Brook Lodge, a member of the Committee.

The prize list was as follows:—

FOWL—(*Gentlemen's Class*).—P. K. Reid, Esq., for the best *Spanish*, a medal; do., for the best *Cochin*, a medal; Wm. Joyce, for the best *Dorking*, a medal; Major Quentin, for the best *Aylesbury Ducks*, a medal; Miss Paul, for the best *Fancy Chicken*, a medal; Geo. Courtney, Esq., for the best *Collection of Poultry*, a first class medal.

PRESTON POULTRY SHOW.—A number of gentlemen interested in the improvement of the breed of domestic poultry, held a preliminary meeting at the Bull Inn, Preston, on Wednesday last, when it was unanimously resolved that a society should be formed for the purpose of conducting an annual exhibition in Preston of choice specimens of the feathered products of the farm-yard. An efficient committee was appointed for the purpose of soliciting subscriptions and distinguished patronage, and for carrying out generally the objects of the society. It is intended that the first show shall take place in January next, in the Corn Exchange. From the spirit already evinced, and the patronage promised, it is confidently anticipated that the exhibitions of the "Preston and North Lancashire Poultry Association" will shortly rank amongst the most attractive in the country.

THE HOUSEHOLD.

(We shall be much obliged by any of our readers sending us approved receipts in cookery, hints for household management, or any other domestic utilities, for insertion in this department of our columns.)

PUMPKIN SOUP.—Pumpkins at this time of the year will often be found in the Cottager's Garden, but are not appreciated as much as they ought to be. They are generally made into pies, mixed with apples. In my humble opinion, it is not so cheap, or so good, as apples alone. In the South of France they are made into a soup with milk. The Pumpkin is peeled, and cut into square pieces of about one inch, and about one pound weight of it added to one quart of milk, with one onion cut into slices, pepper and salt, and boiled. But the following soup, which I made yesterday, is better adapted for the English palate:—Take a knuckle of veal and a knuckle of ham. In absence of the veal, use a calf's foot or a cow-heel, or even some bones; and, in place of the ham, use part of the hock of bacon. Cut and chop these up, put them into a two-gallon stewpan, then add to them two large onions sliced, one carrot, two middle-sized turnips sliced, with skin on, the outside leaves of a large head of celery cut into small pieces, one tea-spoonful of ground allspice, one table-spoonful of salt, and a piece of butter the size of a walnut. If marrow can be had, use it instead of butter. In fact, for all kinds of soups, where butter is recommended, marrow is preferable, only in larger quantities. Place the stewpan on the fire, keep stirring the contents with a wooden spoon, to prevent it sticking to the bottom of the pan, and until there is a kind of white glaze on the pieces of meat; then add, by degrees, one gallon of hot water, peel and take out the seeds of a Pumpkin about six pounds weight, cut it into pieces, and put it into the stewpan; boil until the pieces of Pumpkin are quite soft, pass as much as possible of the contents of the stewpan through a coarse hair-sieve, then boil it again, adding more water if too thick. Season it with a table-spoonful of pounded sugar, a tea-spoonful of pepper, and more salt if required. Serve in a tureen, with some fried bread cut the size of dice. This soup is good at this time of the year, as it cools the blood, and causes the deposit of the acid humours of the body. It is at all times preferable to soups of the pea kind.

Pumpkins may also be dressed as a vegetable, like the large vegetable-marrows, by being cut into slices boiled in plenty of water, with some salt in it, drained well when done, and served on some toast, with melted butter made with cream poured over it.

Pumpkins may likewise be pickled, by cutting them into slices, and proceeding the same way as for Indian pickled, or it will do to mix with other vegetables for piccalilly.—G. W.

STEWED CELERY.—Take some heads of good, firm Celery, remove the outer leaves, and cut off the top, trim the root, but not too much, wash it clean; if very large heads they must be cut in two. Put them into a stew-pan; for four heads, about one quart of water, and half-a-pint of milk, one salt-spoonful of pepper, and a tea-spoonful of salt; boil till they are tender, which will be in about thirty minutes, and the liquid will be reduced one-half; take out the Celery with a fish slice; mix a piece of butter, the size of a nut, with one table-spoonful of good flour, and a pinch of powdered sugar, put it into the stew-pan, stirring it well until it is properly mixed, and of a good consistency, pour it over the Celery, which has been kept warm, and serve. If not required immediately, place the Celery in the stew-pan with the sauce until served. About four young Nasturtiums to each head of Celery, stewed with it, improves the flavour. Stewed Celery may be made with a brown sauce, if, instead of milk, gravy and a little ketchup is used. And if red Celery is used, a very good-looking sauce may be made by the addition of a few slices of Beet-root.

PUREE CELERY SAUCE.—In France, a very excellent *purée* sauce is made with Celery. About twenty heads, one Spanish Onion, two good sized Turnips, should be well boiled in some clear, white veal stock; when tender, they should all be passed through a coarse sieve, and then put into a stew-pan, with pepper and salt, and boiled; keep on stirring until nearly as dry as mashed turnips. This is excellent, served under a ragout of fowl, or with veal cutlets, or boiled rabbit. In cooking Celery, great care should be taken as regards the water, Celery being as good, if not better, a test of the hardness of water as tea. I have cut a head of Celery in two, boiled one-half in one water, and the other in another, and over the same fire, at the same time; one would never get soft, or give its flavour to the water, whilst the other would do it in the proper time. I recommend all cooks, when going into a new place, to try the water with Celery; it is better than any other vegetable, although the same may be done with French Beans, or Carrot cut for Jullienne soup.

CELERY SAUCE.—Take one head of Celery, well washed, cut it into pieces of one inch in length, boil them for twenty minutes in just sufficient water to cover them; then add some melted butter, a little pepper and salt, give it a boil, and just before using it break in the yolk of one egg, well beaten up. This may be served with boiled poultry. Celery also enters largely into the composition of a dish, which, at this time of the year, is remarkably good; at the same time, it is one which is not often practised in this country, being a Portuguese dish. It is **BRAIZED GOOSE.** Truss the goose for roasting. Take two heads of Celery, one Spanish Onion, or two common Onions, previously boiled, so that the flavour shall not be too strong, and boil them with the liver of the goose in a small quantity of water, and a little butter, pepper, and salt; when done, chop them up, shake over it some very fine powdered sage, or the same seasoning as used for sausages, add the same weight of bread-crumbs, and mix altogether with the yolk of egg. Stuff the Goose with this. Then take a large stew-pan or a small fish-kettle; put in it a drainer, so that it stands about half-an-inch above the bottom; then add three heads of Celery, three Carrots, three Turnips, three large Onions, all in slices; on this place about three pounds of lean beef. Then cover the back of the goose with some of the leaves of Celery, and thin slices of fat bacon, which must be tied over it; place it on the meat; throw in the giblets; add two quarts of water, pepper and salt, and place over a slow fire for three hours, keeping the cover of the stew-pan well closed down; it may even require a weight upon it. When done, take it out on a dish; remove the string, bacon, &c.; strain the gravy out of the stew-pan; remove the fat; thicken it with a little flour; if not brown enough, add a little

ketchup; give it a boil; flour over the Goose and serve. Apple sauce may be used with it. I have known persons who never could eat roast goose without being ill, partake of this with ease.

What remains in the stew-pan is very excellent with the giblets, as a stew the next day; or the remains of the Goose may be stewed in it for another day's dinner.—G. W.

TOMATO SALAD.—Take two ripe Tomatoes, free from bruises, and slice them *very thin*. Then take two mild Onions about the same size, peel and slice them also very thin: take your dish, or plate, and dish them round, first a slice of Onion and then a slice of Tomato, till you have dished it all up; and if done nicely will have a nice appearance. You must now take four table-spoonfuls of the best salad oil, and pour over the whole of it; also two table-spoonfuls of vinegar, a small tea-spoonful of pepper, and half a tea-spoonful of salt; give it a slight shake, and it is ready for use, either with cold meat or hot. This salad is delicious.—G. RAY.

CABBAGE SALAD.—Take a nice *hard-hearted white* Cabbage, trim off the outside leaves, and cut down the centre of it; take out the large part of the stalk; lay the flat side downwards, and cut it right through into strips about a quarter-of-an-inch thick: when you have done that separate it, and place it in your salad-bowl; season it with pepper and salt; add five table-spoonfuls of oil and three of vinegar; well stir it about for a minute or two; it is then ready for use, either with hot or cold meat. The Cabbage is best after a frost.—G. RAY.

PRESERVING EGGS.—To five quarts of cold water add one pound of salt and one ounce of saltpetre; boil together for about twenty minutes, and, when nearly cold, add four table-spoonfuls of *pounded* quicklime. Let it stand three days, stirring it twice a day. Place the eggs (which should be quite fresh) in a jar, with the small end downwards, and pour the mixture upon them. Additional layers may be added, as convenient, and from thirty to fifty eggs may be done in one jar. They will keep for months, but must not be taken out of the lime till they are about to be used, when they will be found to be perfectly fresh. The lime should cover the eggs full two inches above them.

This receipt has been tried for several years, with unvarying success.—F.

RESTORATIVE JELLY FOR INVALIDS.—Take two ounces of isinglass, one ounce of gum Arabic, and one ounce of sugar candy. Put these into half-a-pint of spring water, and let them remain eight hours; then simmer over a slow fire, or in a jar in the oven, until dissolved. Add half a-pint of good Sherry, and, when nearly cold, flavour with nutmeg or cloves. This is excellent.—F.

LONDON MARKETS.—OCTOBER 29TH.

COVENT GARDEN.

The supply of most descriptions, both in Vegetables and Fruit, is well kept up, and, from what we can hear, likely to continue so. Both *Cobbs* and *Filberts* are somewhat more freely supplied, and likely to recede a little. Some good samples of *Gratioli* and *Chaumontelle Pears*, from the Channel Islands have come to hand.

FRUIT.

Apples, kitchen, per bushel	2s. to 4s.
" dessert	4s. ,, 6s.
Pears	4s. ,, 8s.
Peaches, per doz....	5s. ,, 8s.
Nectarines, per doz...	2s. ,, 3s.
Plums, per sieve	4s. ,, 8s.
Pine-apples, per lb...	4s. ,, 6s.
Grapes, per lb.....	1s. ,, 6s.
Foreign Melons, each	2s. ,, 6s.
Figs	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb....	2s. ,, —

Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 32s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts	—

VEGETABLES.

Cabbages, per doz. ..	9d. to 1s.
" Red, per doz. ..	3s. ,, 4s.
Cauliflowers, per doz.	2s. ,, 4s.
Brocoli	1s. ,, 2s.
Savoyz	—
Greens, per dozen bunches	2s. ,, 3s.
Spinach, per sieve....	1s. ,, 2s.

COVENT GARDEN—Continued.

Beans	Water Cresses, per
French Beans, per	dozen bunches 6d. ,, 9d.
half sieve	Small Salad, per
2s. 6d.	punnet..... 2d. ,, 3d.
Scarlet Runners .. 1s. 6d. ,, 3s.	Artichokes, each 3d. ,, 6d.
Peas, per bushel 3s. ,, 5s.	Asparagus, per bundle
Carrots, per bunch .. 4d. ,, 6d.	Sea-kale, per punnet
Parsnips, per doz.... 6d. ,, 9d.	Rhubarb, per bundle
Beet, per doz. 1s. ,, 1s. 6d.	Cucumbers, each 3d. ,, 8d.
Potatoes, per cwt. 3s. ,, 6s.	Vegetable Marrow,
Turnips, per bunch .. 2d. ,, 3d.	per dozen 6d. ,, 1s.
Onions, young, per	Tomatoes, per punnet 1s. ,, 2s. 6d.
bunch	Mushrooms, per pottle 1s. 6d. ,, 2s.
1d. ,, 2d.	
Leeks, per bunch 2d. ,, 3d.	
Garlic, per lb. 6d. ,, 8d.	
Shallots, per lb. 4d. ,, 6d.	
Horseradish, per	
bundle	
1s. 6d. ,, 2s. 6d.	
Lettuce, Cos, per	
score	
6d. ,, 1s. 6d.	
„ Cabbage.... 6d. ,, 8d.	
Endive, per score.... 1s. ,, 1s. 6d.	
Celery, per bunch.... 8d. ,, 1s.	
Radishes, Turnip, per	
dozen bunches 1s. ,, 1s. 6d.	

HERBS.

Basil, per bunch 4d. to 6d.
Marjoram, per bunch 6d. ,, 9d.
Fennel, per bunch .. 2d. ,, 3d.
Savory, per bunch .. 2d. ,, 3d.
Thyme, per bunch .. 2d. ,, 3d.
Parsley, per bunch .. 2d. ,, 3d.
Mint, per bunch 2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, OCT. 26.—The arrivals are small this week, not only of English but all Foreign Grain. This morning the attendance at market is limited, and Wheat finds few buyers although prices are firm. Barley a quiet trade, without alteration in price. Oats are held by the Factors, but the consumers take the new qualities rather slowly, and such are 6d. lower. In other Grain on change, and generally a moderate business. Flour the same as on Monday. The arrival of Seeds fresh up to market continues small, and prices are firmly supported. Linseed finds rather less demand, and Cakes do not sell so actively. Tares for sowing are lower, but seeds for manufacturing purposes all support the late quotations.

WHEAT.

Kent and Essex, red,	
per qr.....	84s. to 86s.
Ditto, white	90s. ,, 94s.
Norfolk and Suffolk. .	78s. ,, 80s.
Dantzic	92s. ,, 94s.
Rostock	81s. ,, 90s.
Odessa	73s. ,, 76s.
American	92s. ,, 94s.

BARLEY.

Malting	44s. to 45s.
Grinding and Distil-	
ling	34s. ,, 36s.
Chevalier	36s. ,, 38s.

OATS.

Scotch, feed	34s. to 36s.
English	26s. ,, 27s.
Irish	30s. ,, 32s.
Dutch Broo	29s. ,, 30s.
Danish	30s. ,, 32s.
Russian	26s. ,, 29s.

BEANS.

Harrow	48s. to 50s.
Pigeon	52s. ,, 54s.
Tick.....	44s. ,, 48s.

PEAS.

Boiling, per qr.....	53s. to 56s.
Common.....	43s. ,, 45s.
Grey.....	48s. ,, 50s.
Maple	48s. ,, 50s.

SEEDS.

Turnip, White, per	
bushel.....	—
Swede	—
Rape	84s. ,, 86s.
Linseed, sowing, qr. .	80s. ,, 84s.
„ crushing ..	70s. ,, 72s.
Clover, English, redwt	60s. ,, 68s.
„ Foreign do.	52s. ,, 57s.
„ White.....	68s. ,, 73s.
Trefoil.....	28s. ,, 32s.
Rye, per qr.....	52s. ,, 54s.
Tares	46s. ,, 52s.
Winter, bushel ...	8s. ,, 9s.
Canary, per qr.....	64s. ,, 72s.
Hemp	54s. ,, 57s.

Linseed Cake, per	
ton.....	£11 to £12 10s.
Rape Cake ..	£6 10s. ,, £6 15s.
Indian Corn	47s. ,, 50s.

HOPS.

BOROUGH MARKET, FRIDAY, OCT. 26.—Our market during the past week has been heavy, and as consumers are now tolerably well supplied with Hops there is less business doing. A considerable quantity of Brown and inferior samples having been brought on sale, prices for such descriptions have declined from 8s. to 10s. where sales are pressed, and good qualities have been bought at somewhat lower rates than last week. Mid. and East Kent, 80s. 100s. to 126s.; Weald of Kents, 70s. 84s. to 100s.; Sussex Pockets, 70s. 80s. to 95s.

HAY AND STRAW.

Clover, 1st cut per	
load	110s. to 140s.
Clover, new	120s. ,, 135s.
Ditto, 2nd cut	90s. ,, 140s.
Meadow Hay	90s. ,, 130s.
Meadow Hay, new	95s. to 120s.
Rowan	80s. ,, 90s.
Straw, flail.....	30s. ,, 36s.
Ditto, machine	28s. ,, 30s.

POTATO.

SOUTHWARK WATERSIDE, OCT. 22.—Five Scotch cargoes have arrived this week, which, in addition to free supplies from Essex and Kent, have kept trade steady at our quotations. Kent and Essex Regents, 85s. to 95s.; ditto Shaws, 80s. to 85s.; York Regents, 90s. to 95s.; Lincolnshire Regents, 80s. to 90s.; Wisbeach and Cambridge Regents, 80s. to 85s.; Bedford Regents, 90s.; ditto Shaws, 80s. to 85s.; Scotch Regents (East Lothian), 90s.; ditto (Red Mould), 90s. to 95s.; ditto (Perth and Fife), 80s. to 90s.; ditto (North Country), 85s.; Irish Kemps and Clusters, 80s.; ditto White Rocks, 80s.; ditto common Whites, 75s., per ton.

MEAT.

Beef, inferior, per	Mutton, prime 4s. 6d. to 4s. 10d.
8lbs.....	Veal 3s. 10d. to 4s. 10d.
3s. 4d. to 3s. 8d.	Lamb 5s. 4d. to 5s. 10d.
Do. middling..... 3s. 10d. to 4s.	Pork, large 3s. 8d. to 4s.
Do. prime 4s. 2d. to 4s. 4d.	Ditto, small 4s. to 4s. 6d.
Mutton, inferior 3s. 4d. to 3s. 8d.	
Do. middling .. 3s. 10d. to 4s. 4d.	

POULTRY.

The supply of Poultry is more than equal to the demand for it. Much of it shows by its quality, that the food is dear, as it lacks fatness. The report of the week would be that the market was very heavy.

Large Fowls 4s. 6d. to 6s. each.	Partridges.. 1s. 6d. to 2s. 0d. each.
Smaller do.... 3s. 6d. to 4s. ,,	Hares 3s. 0s. to 3s. 6d. ,,
Chicken .. 2s. 3d. to 2s. 9d. ,,	Grouse 2s. 3d. to 2s. 6d. ,,
Geese..... 6s. 0d. to 7s. 6d. ,,	Rabbits .. 1s. 4d. to 1s. 5d. ,,
Ducks 2s. 9d. to 3s. 3d. ,,	Wild do. 10d. to 1s. ,,
Pheasants.. 3s. 6d. to 4s. 0d. ,,	Pigeons ... 8d. to 9d. ,,
Turkeys.... 6s. 0d. to 8s. 0d. ,,	

PROVISIONS.

BUTTER.—Cwt.	CHEESE.—Cwt.
Dorset, fine 104s. to 108s.	Cheshire, fine 74s. to 90s.
Do. middling..... 90s. ,, 96s.	Gloucestershire, dble. 70s. ,, 76s.
Fresh, per doz. lbs. 12s. ,, 13s.	Ditto, single 60s. ,, 74s.
Friesland 98s. ,, 100s.	Somerset..... 70s. ,, 76s.
Kiel 94s. ,, 95s.	Wiltshire, loaf..... 68s. ,, 78s.
Carlow 98s. ,, 102s.	Ditto, double..... 72s. ,, 78s.
Waterford 98s. ,, 102s.	Ditto, thin 54s. ,, 64s.
Cork..... 98s. ,, 102s.	Ditto, pines 72s. ,, —
Limerick..... 92s. ,, 96s.	Berkeley, thin 62s. ,, 66s.
Sligo	

BACON.—Cwt.

Wiltshire, dried .. 80s. to 84s.	York, new 80s. to 90s.
Waterford 74s. ,, 76s.	Westmoreland 76s. ,, 86s.
	Irish..... 74s. ,, 84s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11d. the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. the 4lb. loaf, while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Teds 1s. 2s. to 1s. 3d.	Kent fleeces .. 1s. 1d. ,, 1s. 2d.
Ditto Teds and	Leicester fleeces.... 1s. ,, 1s. 1½d.
Ewes 1s. 1d. to 1s. 2d.	Long, heavy do..... 11d. to 1s.
Half-bred Hog-	Combing skins .. 10½d. to 1s. 1d.
gets 1s. 3d. to 1s. 3½d.	Flannel wool.. 1s. 1d. to 1s. 2½d.
Do. Wethers 1s. to 1s. 2d.	Blanket wool 6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

RUMOUR (W. W.).—No one has a right to give pain and annoyance by queries founded on rumours that may be groundless. If any reliable evidence can be produced, then let the fact be published.

GREENHOUSE OVER OVEN (*Amateur*).—Not knowing the aspect, nor any other particular, how can we give an opinion? Have you tried "Chase's Composition for destroying Black Beetles?" They would not touch plants.

ANERLEY SHOW (*Fairplay*).—The Judges, unless called upon by a Committee, have no right to interfere after having given their award.

NAMES OF PLANTS (*A Subscriber*).—Yours is *Phytolacca decandra*, or Virginian Poke. (*M. M.*).—1. *Lastrea dilatata*. 2. *Lastrea filix-mus*. 3. *Asplenium filix femina*.

SEEDLING GERANIUM (*P. G.*).—We have a decided opinion on your variegated seedling, but we cannot express it so late in the season. We should have seen it six weeks ago. As the public hold us to be a good authority for bedding novelties, we are bound to certain rules, one of which is, that an opinion on a seedling Geranium seen after the end of September, or a seedling Rose before the 1st of May, is not trustworthy, and might do harm.

ERRORS (*J. A. Summers*).—Mr. Beaton says he is very much obliged to you, and more so if you would take the same trouble whenever you see anything wrong, or which you may think wrong. We ourselves noticed the misprints in *Fabvier* and *Podocarpus*; and he says he wonders that one so near the Crystal Palace as you are did not know that *Coprosma* and *Armeria* are names "before the flood," and that one might be excused for altering them to something like what Noah might be supposed to say. He also says, that we are not to hold the Crystal Palace people responsible for such names as are sent into them, until their collection is officially named afresh, which it needs.

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WEEKLY CALENDAR.

D M	D W	NOVEMBER 6—12, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon H. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
6	TU	Common Flat-body Moth.	30.359—30.301	53—25	N.	—	4 a 7	21 a 4	3 1	26	16 15	310
7	W	Necrobia rufipes.	30.501—30.421	51—36	W.	—	6	22	4 12	27	16 12	311
8	TH	November Dagger Moth.	30.278—30.164	51—31	W.	11	7	20	5 26	28	16 8	312
9	F	PR. OF WALES born, 1841. Lord	30.246—30.156	44—18	N.	—	9	19	sects.	29	16 3	313
10	S	[Mayor's Day.	30.209—30.002	50—41	W.	01	11	17	4 a 20	1	15 58	314
11	SUN	23 SUNDAY AFTER TRINITY.	30.126—29.994	49—28	N.E.	03	13	16	4 48	2	15 51	315
12	M	Bunting's note ceases.	30.228—30.219	47—21	W.	—	14	14	5 27	3	15 44	316

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 51.7°, and 37.0°, respectively. The greatest heat, 68°, occurred on the 12th, in 1841; and the lowest cold, 21°, on the 11th, in 1828. During the period 192 days were fine, and on 94 rain fell.

THE leaves and young shoots of Pear-trees have been unusually and extensively diseased this year. We have noticed this in Hampshire, and elsewhere, and Mr. Rivers, of Sawbridgeworth, writes to us as follows:—

“I enclose leaves and shoots of Pears. The orange-coloured rust first made its appearance on the 24th of June, after the frost of the 21st, and first attacked the thin-leaved sorts, such as *Winter Nelis*, and the leaves of those sorts turned black, and fell off in August. The excrescences on the under side of the leaf did not appear till September, and the same upon the shoots not till very recently. It is altogether a most interesting ‘blight.’ I should like to see it ‘discoursed about.’”

At first, we thought the excrescences were caused by the grub of some Cynips, but Mr. Westwood says:—“I can find no insect, either imago, larva, or eggs, in the excrescences on your Pear leaves, and suppose them not to be produced by insects. In their young state the pustules are filled with a white powder, but afterwards they seem to burst and emit a brown rust. It is, I should think, a case of vegetable pathology, which is well worth investigating. If you should find, by examining them at some later period, that they are insect production, I shall be glad of more specimens, but from their various states, as shown by those sent, I scarcely think this will be found to be the case.”

We then thought, observing that the excrescences became gradually more fibrous and brown, that it might be a result of the dampness of the autumn air, and that the Pear-trees were influenced, as sometimes are gross Vines in an excessively moist atmosphere, which then emit fibres from their branches. This was in some degree sustained by the fact, that the excrescences appeared chiefly upon the most luxuriant trees. However, as the excrescences occurred far more numerously on the leaves, we sought for some other cause, and we think we have found it among the Fungi.

At first, a small lump appears, and in the case of the leaves always near the foot-stalk, or in the vicinity of the mid-rib, and invariably upon the underside of the leaf. Gradually the surface of the excrescence becomes more and more rough, and finally attains a chesnut brown colour, covered, apparently, with pale brownish wool. Upon being shaved off parallel with the disk of the leaf, the excrescence exhibits a cork-like texture, encircled by oval cells filled with a dark brown dust. Under the microscope the woolly fibres are displayed in curled bundles issuing from the chesnut-coloured mass

on which they lie. This mass, when struck, emits the brown dust, and this is shown by the microscope to be the reticulated spores of some Fungus.

This Fungus, we think, is *Erineum lanosum* (Woolly Hedgehog Fungus).

The only preventive measures we can suggest, is to have the leaves collected and burnt; to have the stems and branches syringed with a brine of common salt in early spring, before the Pear buds unfold; and at the same season to have the surface of the soil on which the trees are growing sown with salt, and pointed in with a fork, burying the surface at least six inches.

HAMPTON COURT GARDEN.

If it be true that the half of the world do not know how the other half live, it must be equally true that one-half of the gardening world do not know how the gardeners at Hampton Court manage to make both ends meet, for we never hear of their doings at all in these days. I have lived within the sound of their bell these four years last past, and have seen part of their grounds every clear day during that time, also the loads of Londoners passing my own garden, as if it were of no account, to see the beauties of Hampton Court, and all this without giving it a thought that anything was worth crossing the ferry for to Hampton Court; but, the other day, having had occasion to pass the gates on my way to the once celebrated Garrick's Villa, at Hampton, I went in to see what it could be which attracted so many people from London to visit Hampton Court. Could it be the great Vine, or the maze, or what? I had no notion of seeing flowers of any interest there, or anything else worth telling about. I knew that Mr. Jackson, of Kingston, rented the kitchen-garden and the forcing-ground; that he was successful with forced Strawberries, Cherries, and other things in that line; and I recollect that he once promised to drive me over there, and forgot all about it; and that I forgot it as well. But all this time, I had it in my head that he kept the flower-garden tidy, as a part payment for the run of the rest; and wishing to keep on good terms with him, I did not much fancy going alone, as if to spy the nakedness of the land; hence the sole reason why the rest of us did not hear about Hampton Court long since.

Well, on passing the gates, the first note of preparation made a bad impression on me—the road to the north front of the palace is not properly laid down, according to the lines right and left of it, and it enters the “coach-ring” sideways. When a “coach-ring” is very large, and in the shape of a half-moon, as it is here, the carriage-drive should enter it either directly on one side, at the point of one of the horns of the moon, or exactly in the middle of the curve. To enter it anywhere between the points and the centre, throws the building

before you, as it were, to one side, and that tickles the eye like seeing a person with a low and a high shoulder, though not quite like seeing a pig with one ear. On passing through the entrance hall, so to speak, you are in a large open quadrangle with another "front door" opposite; pass this second entrance, and you are in the inner quadrangle, round the four sides of which run an open colonnade supported on arches, and an iron railing confines you to the colonnade; inside the iron railing is a large square of gravel, in the centre of which is another square of grass, and in the centre of the grass is a basin and a smart jet fountain; on the curb of the basin is a row of beautiful specimen plants in large pots, chiefly different kinds of Geraniums and pillar Fuchias, and along the sides, between the grass and gravel, there is a second row of pot-plants, all in the same style, and just like exhibition plants, they were so perfectly trained, and quite as large as they have them at the shows, and as healthy-looking as they could be. One *Flower of the Day* was a yard in diameter; a *Shrubland Rose Petunia* and a *Heliotrope* the same; *Compactum* as much, and equalled by *Tom Thumb*.

Now, all these were far beyond anything I expected to find at Hampton Court, and, depend upon it, nothing sets off a place so much as good specimen plants placed about the house or grounds, under verandas, on low terrace walls, or even on plain gravel in front of the windows. I have always advocated the system, and the more I see of it with other people, the more I am convinced of the soundness of the thing. Any *harum-scarum* of a fellow can grow a plant if you put it in a bed, or out in the border for him, and water it till it gets its hold; but, my word for it, to grow a specimen plant requires a man to have his wits about him; and when it is grown, see how people will talk and write about it, besides the showiness of the effect produced.

I saw, at once, that *some* heads were put right on the shoulders at Hampton Court, and I hastened through to the garden, as if expecting to discover a new comet; I mean, with that kind of exciting interest, and all on account of seeing three or four dozens of specimen plants round the fountain in that inner quadrangle in the palace. On the south, or garden front of the palace, runs a level terrace-walk, forty-five feet wide and 920 of my steps in length; it is as smooth as this page, and as free from weeds; but they use such a heavy iron roller as takes three men to draw on all but a perfect level. Flower-beds at only four feet apart run along one whole side of this long level walk, the palace occupying the other side for about 460 yards, and then conservatory walls run from each side of the palace to the extreme ends. The said flower-beds stand four feet from the walk, and four feet from bed to bed, and every one of them is square on the sides; the square across from the walk is eighteen feet in all the beds, but the sides along the walk differ from ten to thirty-six feet; just think of planting fifty or sixty beds which are eighteen feet one way, and thirty-six the other way; why, it would make a good farm; but there are three diverging walks running out from the centre of the main walk at certain angles, and a half-moon, or half-circle walk of great length all the way round, to connect them, and all these have their accompanying flower-beds on one side. There are just as many, if not more, plants bedded out here than at the Crystal Palace, and a great many more kinds of bedding-plants are used than at Sydenham; most of the individual beds looked as full, fresh, and gay, as those at the Crystal Palace did three days before. I heard there were twenty men, or more, with a head-gardener, to manage this flower-garden. Few enough, goodness knows, for such a vast surface of flowers, grass, and gravel. I have known as many men kept for one-quarter of the extent; but the whole was in as good keeping as any private place I ever knew.

Now, for the *effect* of this vast extent, which was in perfect order and keeping when I saw it. Was it grand, or magnificent, or what? This garden is laid out in the flat, square, Dutch style, but, with the exception of the canal, some spouting jets, and the straight-lined trees, it is, at present, without the usual accompaniments of this good old style of gardening. Many years ago, however, a great number of Yews were planted at certain distances, for being cut and carved, no doubt, into whimsical shapes, but if the original intention was ever carried out, it is not manifest now. The Yews are there, and in the exact lines of the present flower-beds, every one of them being in the centre of a flower-bed, or in the mixed borders, where they carry the day, and with their gloom and shade hide and destroy all ideas of effect from flower-planting. You cannot see the effect of one of those vast number of flower-beds until you are opposite to it, and then you cannot see the effect of the combination, or of the contrast between it and the next behind it or in advance of it, although none of the beds stand more than four feet apart on the grass; so that for all the purposes of flower-gardening, and for producing display and effect, all the thousands of flowers at Hampton Court might just as well be at the bottom of the Red Sea; and if I were the manager, I would often wish myself along with them, to see so much of "love's labour lost."

When the war is over, a company of the Sappers and Miners should be sent down there, with Sir Benjamin Hall at their head, to grub up every one of those Yews, root and branch; then the two flats on either side of the centre diverging walk from the palace entrance should be laid out in the true Dutch style of lace parterre, if it was thought worth while to retain that style. The Yews could be planted in other parts of the garden in the Dutch double-row style; they might even yet be reduced, by cut and clip, to fantastic shapes, the canal to be alive with sirens and water-kelpies; then, with grottoes and a profusion of statuary, you need not go out of Middlesex to see a good example of the old Dutch style of landscape-gardening. At all events, if I was in the place of Sir Benjamin Hall, I would not rest easy until I had consent either to give up the flowers altogether, and turf up close to the Yews, or remove the Yews, and keep to the flowers. The present style is neither one thing or the other, but a bastard of bad taste and flat Dutch. Nevertheless, there are more points of good flower-gardening to be learned here than either at Kew or the Crystal Palace.

At Kew, they tried the shot-silk bed, and failed most completely, over and over again; but here they are more successful with it, and no other garden in England could produce a better bed of the *Purple Unique* Geranium as I saw here that day. It might contain 100 or 150 large plants; and the whole was as regular over the top, and along the sides, and as full of bloom as a bed of *Tom Thumb*. I have had it, on the Suffolk chalk, fully as good, once or twice, but not always; and I did not believe it could be so well done in moist, sandy loam; but the secret will be out next week, for I have a bagful of notes, and a note on every plant and bed in the garden.

D. BEATON.

(To be continued.)

FUCHSIA DOMINIANA.—We have had this beautiful Fuchsia in bloom, in the conservatory of Sir Francis E. Scott, Bart., for upwards of four months, and it improves in size of flower and colour as the season advances. It makes one of the very best conservatory plants. The foliage is beautiful also.

SALVIA GESNERIFLORA makes another very useful plant

for decorating in the winter months. Cuttings struck in the spring, and planted out for the summer, will make fine, large bushes, and, if lifted and potted before they are injured by frost, and kept in a close pit for ten days, they will re-establish themselves, and amply repay, in a short time, with their fine, showy flowers, the little trouble bestowed upon them.

Will any of your correspondents please to say a little about *Calceolaria violacea*, as to its treatment?—E. R. CARPENTER.

ANSWERS TO INQUIRIES RELATIVE TO VARIOUS GLAZED STRUCTURES.

1ST. "C. M. B." purposes building a lean-to greenhouse, twenty-one feet long and twelve feet wide, against a wall ten feet high, having a brick wall three feet high at the ends and front. The glass in front three feet in height, and higher, of course, at the ends. The roof to be fixed, glazed with Hartley's patent. *Ventilation* by a door at the back opening into a shed. A door at one end, and three sashes in front, intended to open. Openings also in the brick wall, and in a moveable box at the apex of the roof, which goes along its whole length; and various other matters, which will appear in our answers, approving or qualifying. The roof will be very substantial. Four rafters will be used, each four inches by five inches, one at each end, and the other two at equal distances, in the middle, and the roof will be further strengthened by an iron rod, passing longitudinally along the middle of the roof, and screwed to each end. The sash bars going betwixt these rafters will be three-and-a-half inches by two-and-a-quarter inches, and so far apart as to receive eighteen-inch wide squares by twelve inches in depth, each of these weighing three-and-a-half pounds. This seems a great weight, and I would prefer having the sash bars so close, as to have the squares three inches narrower, or even to reverse them, and make them twelve inches wide and eighteen inches long. With glass about eighteen ounces to the foot, this precaution might not be necessary; but I think there is considerable force in the objections of Mr. Lane to very wide squares. The grooving of the sash bars is all very well, but if not made larger than the glass, there is much trouble in removing and replacing a broken square, though with glass of the intended thickness that will not often be necessary, if fair usage is given to it.

The front is to have seven studs, equally divided, supporting the wall plate, each three inches by four inches, and the intermediate sash bars are one-and-a-half inch by two inches, for receiving panes of crown glass eleven-and-a-half inches wide by twenty in depth. The ends are also to be crown glass. It matters not whether the half of these front sashes slide past each other or open outwards. In fact, with large ventilators in the front wall, as proposed, and one window in the end opposite the doorway, there would be no necessity for opening the front sashes at all, and then, with the necessary studs to support the wall plate, it would look better to have the bars of the roof and the front sashes ranging in line. With sashes three feet in height, and without any cross bar, the crown glass will be liable to accidents in opening and shutting. The only advantage of the crown glass at all is, that you can see through it. This, however, will very likely put you to the expense of a shade in summer. Were the squares in front of the same width as the roof, you might have spaces of that, or double that width, to open in front; but our chief objection to the three or four feet openings you propose, arises from having no cross bars in your three feet deep front sashes, as much of the crown glass is very thin.

Ventilating.—I do not know if I altogether compre-

hend your moveable box at the apex of the roof; but if that can be raised, as necessary, as said already, your doors and front wall ventilators would give you enough of fresh air. If you turn these ventilators to another purpose, as hinted at, so as to heat an outside border, then you must have several openings in the front for air.

Heating.—This is to be by a flue. The stock-hole must be sunk so low, that the fire-bars of the furnace should be from fifteen to twenty inches below the bottom of your flue. This will give you a good draught. The higher your flue stands in the house, the less necessity for sinking your stock-hole, a matter of importance where water is likely to trouble you. A very small flue would manage such a house as a greenhouse. I heat a house nearly as large with a small four-inch flue placed below the tile floor. But as you speak of Grapes, you had better have yours all clear above the floor. A nine-inch flue, that is, two bricks set on edge, and from six to nine inches wide, inside measure, would answer for common purposes; but if ever you contemplated turning your greenhouse into an *early* Vinery, then you had better have three bricks on edge for the sides of your flue instead of two. It is advisable to have the flue as many inches from the wall as will permit of the sides being easily examined, and preventing any dry litter, leaves, &c., from accumulating there. After a suitable foundation above the floor level, such a flue will be low enough to enable you to have your front and end shelves from four to six inches below the level of the glass. This will give a little shade to the roots of your plants, while the tops will have all the benefit of the light.

I am supposing that your internal arrangement is fixed to a narrow shelf, twenty inches or so wide at front and the ends, beneath which the flue is to go; but, were I told that you wanted Grapes in the autumn; that you neither wished to see a raised border for them outside the house, nor litter and boxes round their stems; then I would build the front wall on arches, make the border outside all the same, but lower than the inside of the house; place the flue twenty or twenty-four inches from the wall, and bring a return back again, side by side, if deemed necessary. In the space between the flue and the wall, I would plant the Vines, and bring the stems up through the latticed shelf, or platform, which would thus be somewhere about three-and-a-half feet wide, just nicely manageable for examining every plant on it; and then, with three feet wide of a path or so, there would be five feet or more for a platform or stage behind, no frost nor snow would hurt your Vine stems; and by dividing the interior of the house, watering, &c., would be more easily managed.

Whatever plan be adopted, the ventilators in the wall should just be opposite the flue, so that in cold weather the air may be warmed before getting to tender things in the house. Our correspondent here starts an objection, and makes an enquiry—"If I put in Vines, the beds will take up the front wall and cover the ventilators there. Could they be turned to other account by connexion with the flue to force the Vine at the roots?" I have already mentioned how the front wall need not be covered up, though, unless great care in draining is exercised, I do not like the plan so well as a border with a good slope to the sun. But, allowing that the raised border is made outside, and a narrow shelf, instead of a broad platform, is placed in front of the house inside; and these ventilators are supplied with a sliding shutter inside; then a hollow pillar outside, rising above the boiler, and communicating with these ventilators, as at Althorpe Hall, would secure fruit, air being mollified before it spread into the house. For mere greenhouse plants, however, such care is not often required.

As to using such openings as a means of heating the Vine border, it would never be required, unless in early forcing, and then it would be most useful. The openings,

then, would be required at the bottom of the wall, or, rather, the front wall would require to be placed on low arches, and that part of the border next the house would require to be chambered. Then, to render it effectual, the flue would need to pass through that chamber; or, if it stood in the house, the flue must be covered over, so that the heat should be thrown into the chamber before it rises into the house; unless, as already intimated, a strong heat was used, the flue would tell little upon the border. The simplest mode for influencing the border by the heat of the flue, would be to build the front wall solid in the usual way, and to make that wall act as one of the sides of the flue. This will, however, lessen the heating surface for warming the atmosphere of the house. It is impossible to get every advantage by any one mode of action. The front wall had better be nine inches wide.

For such a house you will want five Vines, and these may be two *Royal Muscadines*, two *Black Hambro's* and one *West's St. Peter*, if greenhouse temperature is to be given. If the heat of a Vinery is to be given, substitute the *Dutch Sweet Water*, and the *Golden Hambro'*, or the *Muscat of Alexandria* for the Muscadines.

2nd. "G. H. F. C." is about erecting a range of houses, thirty-five feet long, in the middle of a wall, 200 feet long, facing the south; the houses to be ten feet wide, a gravel path passing in front. The Vinery is to be twenty feet long, and what is said above of number of Vines, formation of roof, &c., will be applicable here. Owing to the gravel path, the Vines are to be planted inside of the house, and the border made there, and this seems to be all that requires particular notice. He has been advised to take out the whole space to the depth of three feet; then to concrete the bottom, which is clay; on the top of the concrete to place ten inches of rubble, bricks, &c., covered with ashes; and then place the old earth over that to the depth of something under two feet, with sand upon the top to keep it sweet. Now, the great omission in the specified circumstances is, the want of a drain below the level of the concrete to keep that and the rubble dry. The propriety of replacing the old earth will greatly depend upon its quality. I would prefer fresh soil, of a hazel-coloured, loamy nature, and that I would keep it open by two or three cart-loads of lime rubbish, pieces of chalk and lumps of charcoal, and enrich it with from a dozen bushels of broken bones, which will long continue to give out their nourishing qualities. Provided the soil is thus kept sweet and open, strength can be given at any time, by surface-dressings and manure-waterings. In such a house I would prefer planting the Vines against the back wall, by bringing them down the roofs.

3rd. "A Beginner" has a range of four low lean-to houses, or pits; sunk two feet in the ground, but perfectly dry. The two middle ones are sixteen feet by eight, and the two end ones are sixteen feet by fourteen. Those are heated by a Polmaise stove, which works admirably; and for the two centre divisions bottom-heat can be obtained at will. Near the end of these, but standing quite clear, is a span-roofed house, eleven feet by thirty-four, not heated. The ends of this house point north and south. All these have been used for the supply of a greenhouse close to the mansion, and furnishing a good-sized flower-garden; but our correspondent thinks they ought to do more, as he has brick manure-pits besides, and especially since he is willing to apply top and bottom-heat to the span-roofed house, and wishes to know how best to arrange this house, and make the most of the others, being open to Grapes, Pines, &c.

Now, I would gladly give every information upon any specified point that I felt at home upon, in return for a plan of the working of the Polmaise stove that heats these four houses, and supplies bottom-heat to two of them. Two houses, sixteen feet by eight, ought to

supply a good many plants to a fair-sized greenhouse. The bedding-plants could all be removed by the end of April, and hardened off, and protected out-of-doors, until planting time; and I see no reason why the end houses should not yield crops of Grapes, and the most of these be cut before the bedding-plants come in by the end of October. Presuming that the two centre houses, sixteen by eight feet, have a sufficiency of bottom-heat, Pines could be cultivated in them, and the span-roofed house set apart to plants, and one-half of that might be appropriated to greenhouse plants, and the other half to stove plants and Orchids. For such purposes, there would be no absolute necessity for bottom-heat, and it would matter little whether the pathway went down the middle, or around it, only the single pathway would occupy least room. Such a span-roofed house would be the very place for Cucumbers and Melons, and, in that case, bottom-heat would be necessary, and a single pathway down the middle desirable, with a bed heated beneath on each side.

Supposing that one-half of such a house was appropriated to Cucumbers in winter, the other half might be filled with plants, French Beans, Strawberries, &c., before the Melons were of good size to be planted out and monopolise the head-room. These, trained to a trellis, would present an interesting appearance, and would leave many a nice place for a favourite plant on the surface of the bed. In such a house, supplied with bottom-heat, and a path in the middle, and means of examining by lifting the sashes from the outside, Pines might be grown very successfully planted out; and with or without bottom-heat, the same beds, with a different regulation of temperature, would just be the place for fruiting Vines, Peaches, Figs, &c., in pots. So much has lately been said on heating, that I need not refer to the modes of doing so. There is no end to the uses to which such houses may be applied, and there is much pleasure in applying houses to different purposes at different times. I shall have much pleasure in attending to any specific inquiry.

R. FISH.

IVY AS A SCREEN.—There is one mode of employing Ivy, which I am surprised is not more generally adopted. My residence is in the vicinity of a large town, and, when built a few years ago, was in the open country; but, as is frequently the case in such situations, unexpected buildings have arisen around it, to shut out the sight of which I have adopted the following plan:—I have planted, thickly, on a raised bank, good specimens of Ontario and Black Poplars, against which, in good soil, I have placed strong plants of the Irish (Canary Island) Ivy, keeping them well watered during the summer. It is astonishing how quickly they grow, and will speedily make a tall evergreen hedge; if, eventually, they nearly kill the trees it will be a matter of no importance, as the object will be gained.—S.

NEW, OR GOOD BEDDING-PLANTS.

THE system of furnishing the flower-garden with masses of plants, one to a bed, or with an edging of a dwarf plant round the mass, has become quite the rage, and is still increasing, so that even amateurs with small villa gardens are, many of them, following the fashion. The gardener, now-a-days, has to provide an immense stock of plants, in the autumn and spring, to furnish his beds and his ribbons of flowers whenever he has the means of preserving them. Formerly, his Melon-pits, Cucumber-frames, &c., had a rest during winter; they were like the ships in the Black Sea, taken home into a dry, comfortable dock, and, while there, furnished em-

ployment to the young men to repair and paint them for the ensuing campaign; but now, every inch of glass is in requisition to protect his *Tom Thumbs*, his *Scarlet* and *Purple Kings*, and *White Queens*. Even *Mont Blanc* must be put under cover, and all the rest of the troops of bedding-out plants, to shelter them through the winter to be ready for warfare against naked beds and barren borders the ensuing summer. Many an old gardener sighs for his old, mixed flower-borders, the only care of which was to cut down the flower-stems as they went out of bloom, dig the borders over in the autumn, place sticks to his *Phloxes*, *Delphiniums*, &c., during the summer, sow a lot of annuals, and keep the flower-garden neat and clear of weeds. Very beautiful these mixed borders were; at least, I thought so in my younger days; and I confess, like many other old gardeners, to a hankering after the good old method. However, the fashions change even in flower-gardening, and to keep up to them, both old and young gardeners must be wide awake, up, and doing.

It has been suggested to me, that a few notices of new varieties of bedding-plants that have proved to grow well, and flower during a long season so as to be effective, would be useful to a large number of gardeners and amateurs. And also a notice of any old plant that has hitherto been grown in the greenhouse, or mixed border only, but has been proved useful for the beds in the flower-garden, either as an edging or a mass. In accordance with this suggestion, I shall ransack my note-book and memory to give a list of such plants as I have actually seen growing effectively during the past year in various places.

There are no plants so much used in bedding as *VERBENAS*, because they furnish so many distinct colours and flowers for so long a period, and mass so well, either as a bed, or as parts of a ribbon of flowers. The varieties are almost endless, and every year adds to their number; but what the flower-gardener requires to be effective are clear, bright, distinct colours.

In *Whites*, there has been but little improvement for many years. The old *Mont Blanc*, *White Perfection*, and *Bray's Queen* are, as yet, as good as any for bedding. I have them all now, this 12th of October, in excellent bloom.

Scarlets are more numerous. I have seen *Mrs. Woodroffe* in beds, but it is more of a crimson than scarlet, and appears to be equally as strong a grower as *Robinson's Defiance*, and not so free to bloom, yet it is decidedly distinct, and a fine variety. It should be grown in poor, strong loam, and planted thinly to keep it dwarf and to bloom freely. The best decided scarlet is *Thompson's King of Scarlets*. It is a moderate grower, with medium sized foliage, large, even truss, and abundant flowers. I have had a bed of it this summer, and can vouch for its excellency.

Brilliant de Vaise is a fine variety for bedding. It is something like our old favourite *St. Margaret*, but has more scarlet, and is a better and larger trusser. Its chief merit is the long season of its flowering. My bed was planted very early, and was in flower before any other, and is, this day, as fine in bloom as ever. Every body ought to grow this really effective and charming *Verbena*. It certainly belongs to the scarlets, though it has a shade of crimson-purple in the centre. It requires a strong loam to grow it well. I believe many a good *Verbena* is condemned unfairly by being grown in a soil too rich and light.

A very good scarlet for a small bed, or for the front row of a ribbon, is one I have grown this summer under the name of *Scarlet King* (mind, not *King of Scarlets*). It is very dwarf, has small foliage, and rather small, though very numerous trusses of brilliant scarlet flowers. It is all scarlet, having very little if any eye. I think large eyes objectionable for bedding

varieties; they deteriorate the effect of a good self-coloured bed.

Purples, or, as they are called, *Blues*. Whoever saw a blue *Verbena* the colour of the corolla of *Salvia patens*? A really blue *Verbena* is as rare as a blue *Dahlia*, and would be almost as valuable to the fortunate raiser. We may see it some day. *Bluebeard*, I was assured, was a genuine blue. I procured a strong plant of it, and I have it now in flower, and behold it a purple, with a large, white eye, very nearly like *President*, or *Monsieur Paquin*, and no improvement either; yet it is a desirable variety, but not for bedding in a mass. It is a good pot variety. Having, then, no really blue *Verbena*, what is the best purple? I say, without fear of contradiction, *Purple King*, a variety raised by my friend, Mr. Scobie, gardener at Holland House. There is no mistake about this variety. I have had a truly splendid bed of it this year, growing in strong, poor loam. Such a mass of colour I never saw. It has no large eye to reduce the colour. The trusses are large, and keep their colour to the last. It has small foliage, dwarf, compact habit, with abundance of bloom for a long season. *Emma* and *Mrs. Mills* are nowhere in merit beside it, either in habit or colour.

I had heard a good report of *Wonderful* as a purple *Verbena*. I saw it in bloom at Mr. Turner's, at Slough, and, to my great surprise, it is no purple at all, but a *plum* colour, that is, a mixture of purple and crimson, with a large white eye. Certainly a fine *Verbena*, but not for bedding-out, where a dense colour is required. In mixtures, or as a pot plant, it is a very fine variety. I think it will be useful in a long row, in the ribbon style. It will give a desirable shade, shot-silk-like, in such a situation.

I have now gone through the three fashionable colours, *Red*, *White*, and *Blue*, as nearly as this class of flowers approach to. It only remains to notice pink and dark.

In *Pinks*, there is none superior to *Beauty Supreme*, unless it be a seedling raised near Leeds. I had a plant of it sent me in the spring, and I propagated it freely, and planted it out at the proper season. It has proved a very good variety in its colour, which is decidedly superior to its prototype, having larger trusses, and keeping its colour to the last. It is now in good bloom.

In dark colours, we have the old *Louis Napoleon Buonaparte*, a dark *crimson-maroon*. Whoever wishes for a dark *Verbena* for a bed should procure this.

William Barnes is a dark *Verbena*, of good habit; colour, a *purple-amaranth*, difficult to describe, but very fine, and a good bedding variety.

I think all stripes and spotted varieties are not suitable for bedding in masses. Self-colours are what we want for such purposes. I have heard of a pure white, named *Céline Malet*, raised on the continent, which, I am told, is a great improvement in its class, being of a pure silvery white, trusses large and compact, and of a good habit. I mean to try it.

Next in importance to the *Verbena* as a bedding-out plant is the *GERANIUM*, especially scarlets and varieties raised therefrom; their name is "legion." After all, in pure scarlets there is none that for general usefulness surpasses our old friend, *Tom Thumb*.

Good scarlets, with dark horse-shoe foliage, have a novel and very good effect in beds or ribbons. *Princess Royal* belongs to this class, and is very worthy of a place in any flower-garden. I cannot trace its history. Its recommendations are dwarf habit, very distinct foliage, and medium-sized trusses of true scarlet flowers. *Bragg's Glory* is a good variety, rather stronger in growth, and a larger trusser, with better-shaped flowers, and a higher colour. It was raised by the celebrated florist, Mr. Wm. Bragg, of Slough. In the year 1853, my foreman picked up somewhere a cutting of a scarlet horse-shoe *Geranium*, under the name of *Giant King*. It is a strong grower,

as its name imports, but at the same time is a dense one, and flowers most abundantly. The individual flowers are the best formed of their class, as round as a shilling, and nearly as large; the truss is also large and compact, the foliage medium size, strongly marked. For the back row of a ribbon, I think this will prove an acquisition, or for a large bed, if the strong growth is kept under, by plunging them out in their pots. It is an excellent variety for vases, and to grow in pots for the conservatory or the greenhouse stage. Or it will clothe a pillar, or cover a wall, such as that in the Crystal Palace, with excellent effect. A true *rose-coloured* bedding Geranium has been long a desideratum. That desire is now attained in a seedling raised at Trentham, and christened *Trentham Rose*. It has beautiful light green, medium-sized foliage, and large trusses of good-formed flowers, of a clear rose-colour. This I have proved to be a good bedder, and can recommend it strongly.

The additions to our variegated Geraniums are not numerous. *Flower of the Day* holds its place as a first-rate bedding variegated Geranium. *Mountain of Light* only does well in places (Enville Hall Gardens, for instance). Lee's *Silver King* will, when more plentiful, be found admirable for this purpose. It combines the good qualities of both the first-named, having the foliage of *Flower of the Day*, and the flowers of *Mountain of Light*. Indeed, the variegation is better than either. It is easy to propagate, and of a hardy constitution.

Cowley's Brilliant, though a good bloomer and of a good colour, is apt to lose its variegation. In poor, sandy soils it will do better, and as it propagates freely, and grows quickly, it is worthy of a trial.

T. APPLEBY.

(To be continued.)

MR. WILLIAM DRAY died on the 7th October at the cottage of Colonel Colt, in Wethersfield Avenue, Hartford, Connecticut. Mr. Dray was an Englishman, who had but lately proceeded to the United States with his wife and two daughters, having been selected by Colonel Colt, the well-known inventor of the revolver which bears his name, as a scientific gardener, to improve and beautify his extensive grounds upon the South Meadow. These grounds, according to a local journal, consist of rich meadow land, protected from the freshets of the Connecticut by a dyke or embankment 120 feet wide, 15 feet high, and two miles in circuit, furnishing a beautiful drive for fashionable equipages. Colonel Colt's design is to lay out the whole enclosure into streets, and erect a factory for his revolvers and other buildings on a level with the dyke, accordingly as his own wants or those of his purchasers may require. In accomplishing these objects, which, exclusive of the purchase of the land, involved a capital of not less than a quarter of a million dollars, already paid out, while the land itself cost fifty or sixty thousand dollars, Colonel Colt sought the aid of Mr. Dray, who entered upon his task under the most favourable circumstances, with abounding encouragement and support from his employer. Everything is said to have prospered under his hands, and there was beauty and completeness in his designs. It was expected that the ensuing spring would have seen the Meadows a place of beauty as attractive for its agricultural and horticultural aspects as it now is for the grandeur of its armory and dependent establishments. But in the midst of his plans Mr. Dray was carried off by death, much regretted by his American friends, to whom he had commended himself by his gentlemanly deportment, professional skill, and general intelligence.

VARIETIES OF FRUITS, AND THEIR PECULIARITIES.

It is somewhat remarkable, that of the multitude of new bedding plants, fruits, varieties of vegetables, and other acquisitions made every year to our general stock, few survive more than two or three years, the rest falling into oblivion, or, very possibly, returning into their original state again, which was neither more nor less than that of an old variety under a new name. Now and then, however, we have a something of sterling merit sent forth, which deserves everything said in its favour. Attempts have been made, from time to time, to subject the qualities of new things to an efficient tribunal; but this has always failed, owing to causes which are easy to explain. "A variety may be good at one place, and not at another," thereby rendering it impossible to approve or condemn it entirely without some qualification. We all know the *British Queen* Strawberry is a very fine fruit—perhaps the very best of its class when well grown—but it will not succeed everywhere: in fact, I can scarce get the plant to live, even by removing the bloom. Other fruits have like peculiarities. Neither does it follow that the latest varieties are the most likely to succeed everywhere; for, although the *Hawthorndean* Apple is not, by any means, a very old variety, there are few showing more signs of decay than it does; in fact, it almost refuses to grow at all in some places, where other kinds do well. A few speckled, unsightly apples are produced on a cankered tree of but a very few years' growth; and the pruning-knife and spade are applied to it in vain in the way of improvement, for it is considered as incurable; and facts have proved it so. Some other varieties are also fast passing away. A healthy, good-bearing *Jargonelle* Pear is not to be found everywhere; and the *Ribston Pippin* Apple is but sparingly planted now-a-days.

The question, then, arises, How are these fine old fruits to be substituted? Their names have been so familiar, that they cannot well be done without; and it is a lamentable fact, that we sometimes see their names transferred to others, perhaps with as much propriety as the name of a commercial firm is transferred to their successors after all the originals have died out. But what is a more serious matter in the varieties of fruits of recent introduction is, that they give tokens of decay before arriving at the age their predecessors did. *Keswick Codling*, *King Pippin*, *Wellington*, *Royal Standard*, and other Apples, all good varieties, a few years ago, now show signs of premature decay; while old kinds, as the *Pearmain*, *Rennett*, &c., promise fair to outlive them. In certain districts, I have no doubt but this state of things will be reversed; but I fear few of our lately introduced kinds will prove so good as their forefathers.

Much as has been written on this subject, I fear the real cause has not often been adverted to; neither am I sure that my theory is the correct one; but I venture to give it. Are we perfectly sure that a seed does not carry with it some of the constitutional defects of its parent? It seems to be universally admitted that a bud, or graft, does so. Then, does a seed do so, or does it not? The matter is one of opinion; for, in the case of fruits, few have the chance to live long enough to see it proved. But my view of it is this: that the recent varieties of Apples have been raised from the pips of former varieties, instead of from the original Crab, the parent of all. Now, if I am right in this hypothesis, each succeeding generation will be shorter lived, unless, as in the case of cattle-breeding, some "fresh blood" be called in, which can only be effectually done by having recourse to the original. This is, unfortunately, too slow a process for the hasty and impatient spirit of the present time. A hybridiser of the present day wants to

see the result of his labours so quickly, that his operations rarely embrace anything beyond the scope of the next year or two. Patience, and anxious wish to benefit futurity, are qualities which certainly do not prevail so much with us as with our forefathers. A never-easing anxiety for novelty is the order of the day, and the most speedy means are taken to gratify that propensity, rarely caring for futurity.

It cannot be denied but that some of the most important of our fruits want to be replaced by younger and more robust kinds. Our Apriots are not what they once were; neither are the Peaches; I mean in a general way; isolated cases being no criterion. There is, certainly, abundant proof that the *Royal George* Peach, *Moor Park* Apriot, and *Green Gage* Plum, become diseased trees long before their predecessors did; and can that be owing to any other cause, than these fine old varieties becoming debilitated by old age, and the accumulated evils of hereditary disease?

While on this subject, I may remark, that many of the most intelligent fruit-growers in this district, who grow very large quantities for market, have, of late years, turned their attention very much to new varieties, and have often been deceived. Either the variety has not proved true, or has not answered their expectations; independent of which, fruit-crops have been rather precarious the last half-dozen years and more. This has been unfortunate; for the new kinds have suffered as much, or nearly so, as the old; consequently injuring their reputation as good, useful fruits; and as some of them have showed signs of decay, or canker, the question is very naturally asked, whether they are any better than the old ones? Some sweeping reformers insist the whole want to be remodelled, by importations from abroad; but many of those we have had from thence have proved unsuitable. The *Court Pendu Plat*, *Gravellines Pippin*, and some others, which, I believe, to be of foreign extraction, are far from healthy, good bearing trees; neither is the Pear, in all cases, good; although it must be confessed that a great acquisition has been made in them during the last thirty or forty years, and that mostly from the continent.

I will, at an early opportunity, give a list of the fruits best suited for Orchard purposes, but cannot well do so at the present moment, some further inquiries being necessary, and the opinion of some other friends, whose extensive experience in the line entitles them to respect, having been promised. I will, when the whole is complete, give the result of our joint opinions; at the same time, be it remembered, that the old proverb, of "One man's meat is another man's poison," holds good, especially in fruit plantations; for varieties suited to one place do not prosper at every other. This is felt so forcibly here, that sometimes the difference of a single mile, with no apparent difference in soil or situation, effects an important change; the kinds doing well at the one not succeeding at the other, and *vice versa*.

Vegetables have not such pointed peculiarities, because their food is of a coarser kind, and when supplied them in sufficient quantity, they have little to want. Varieties of flowers, being more delicate, have their "likes and dislikes" more pointedly developed; but being more the creatures of the day, they do not suffer so much as the fruits do, neither is their well-being such an important matter; for whoever plants a fruit-tree, naturally expects his grandchild to benefit from it as well as himself, or those coeval with them; whereas, there are not more than one per cent. of the many varieties of flowers brought under notice that are popular longer than half-a-dozen years or so. This, of course, renders it difficult to find out the peculiarities which characterize the fruits which experience has proved to have their favourite places of abode, and contrariwise.

Amongst the Pears which have become popular

Orchard fruits, the *Marie Louise* and *Williams' Bon Chretien* stand pre-eminent just around here; the former coming into use by the middle of October, or sometimes by the beginning of it; and "*Williams' Pear*" (as it is called), sometime before—the month of September may be called its season. These two Pears thrive pretty well as standards; and, what is of some consequence for the amateur to know, they are better in that condition than when grown on the wall; the fruit being better flavoured, although smaller; but in the standard fruit there is the absence of that peculiar flavour to *Williams' Bon Chretien*, which is felt so strongly on the wall fruit; while *Marie Louise* is much richer. I merely here mention these features of these two fruits; at another time, I will enter more fully into these matters.

J. ROBSON.

THE BEATONIAN BURNING BUSH.

MR. BEATON, in a recent number, gives a glowing description of what he calls a burning bush of his own invention. Without envying my worthy friend, I so far agree with him, if dying American plants are not to be supplied with suitable food, or allowed to be sent to the rubbish heap, they are quite as well covered with Nasturtiums—only, no entire leaf picking. Trickery, even in a tea-dealer is detestable, and can only be allowed with flowers and plants, in such cases as the visit of George IV. to Edinburgh, or the more recent one of our good Queen to Paris. If practised as an every day affair, it will end in disgust and disappointment.

Allow me to tell Mr. Beaton and your readers of a much better one, at least for shrubberies, which is the Single Snowball Guelder Rose, with its branches covered with thousands of its beautiful crimson berries, hanging carelessly, but gracefully, out of a large Ivy bush, which the stems of the Guelder Rose support, putting one in mind, as they wave in the air, as if covered with Indian insects. What a pity these two fine old plants are not more cultivated.

The common Barberry is beautiful, under similar treatment, with the addition of a creeping Rose and Honey-suckle, &c., besides giving food to our willing songsters. Leaving the bushes, where can there be found a more beautiful tree, at this season, than the Mountain Ash? We have them here twenty to fifty feet in height, covered with millions of these golden and crimson berries, happily blended with Ivy, Yew, Holly, Laurel, &c., and backed up with magnificent Silver Firs, &c., forming some of the most gorgeous masses the eye can behold. Fancy the sun throwing its rays on one of these masses in the morning, when each of those coral berries has its wee dew drop, the dimmest of which would cast a shade on diamonds of the first water; or when waving in the breeze with the fine dark, back ground, is truly worth admiring.

I wish I had the power to plant one of the Highland passes, I would plant the entrance with Scotch Fir towards the top as a back ground; Yew, &c., for facing them up; and common Savine as edges, at least fifty feet in breadth, all the rest in irregular masses of Mountain Ash, Single Snowball Guelder Rose, Common Barberry, Scarlet and Cockspur Thorns, quantities of single, creeping, and wild Roses, &c., that have scarlet hips. In fact, all the scarlet and golden berried trees and bushes I could lay my hands on, with *Pyracantha*, *Cotoneaster*, &c., for the foreground, with just enough of Scotch Firs, here and there, to give weight. What a glorious and dazzling sight it would appear on entering from its gloomy and sombre neighbour, with its towers on towers of coral berries, and with the lake or sea in the distance. This may appear romancing, but there is nothing very difficult in carrying it out to those that have the glens. The plants and seeds I would use are cheap enough; and as art could not surpass the heath, furze, &c., already there for underwood, all that is required would be to plant and sow where necessary. One thing in its favour is, that it would be in its glory in the Scotch season, and also provide endless food for game, &c.—D. FERGUSON, *Stowe, Buckingham*.

P. S.—Within a mile of the Brackley Station, on the Oxford side, I was rising out of one of these rich valleys

so common in Oxfordshire, so pleasing to the eye, and grateful for the labour of the husbandman; on the right were two or three old cottages, reflecting no credit on their owners nor inmates, though, judging by a stout, young, healthy dame at the door, who gave undoubted evidence she was more attentive to her meals than the length of her dress and toilet. A little farther on, to the left, was a well-stocked farm-yard—no bad entrance to a village—but nothing to lead me to expect the treat in store for me. On turning a corner, all at once I found myself in an irregular square, with ten stately Elms, well arranged on a beautiful lawn of, I should say, seven or eight acres, surrounded with cottages of various sizes, without much pretensions, or remarkable for their architecture, but whole ranges of them, from the ground to the roof, were in a blaze with *Pyracantha*, now in full perfection; even the ends of the barns are covered with them, showing, at once, what effect masses of anything have over your single milk-and-water planting.

As the children were coming out of school, I held up a shilling as a prize for the first that could give me the name of those beautiful plants, but was sorry to be obliged to be satisfied with "Please, sir, they are the berry trees"—no bad answer after all. I was so struck with them, that I forgot all about train time, and I had the pleasure of an extra ten miles' walk for it; and, oh, Mr. Beaton! here is, at least, five or six of the Beatonian Burning Bushes; in one little garden, which you would have been delighted to have seen; and, was I possessed of a magic wand, you would have a *fac simile* in front of your door by way of surprise some morning, improved by the addition of the Canary Creeper, which really makes a splendid mixture; as the Canary-bird, though small, will be uppermost. I also saw hedges of it leading to cottage doors; and, in one instance, there was a ridge of the yellow one, some ten or twelve inches in depth at the top, which I thought very pretty. There are several cottages on the upper side that appear to belong to nobody; yet they are not without their attraction; the crimson poppies are at home on the thatch, and these old places have a fine, irregular outline, and, as far as the outside is concerned, a little thatch, and a few hundreds of *Cotoneaster*, *Pyracantha*, China Roses, and Ivy, would make them delightful; though I should have liked to have seen the church here, which I found between the mansion and the village of Evenley, it has no pretensions to grandeur, but is remarkable from being covered with Ivy; and as cattle apparently at one time had been allowed to eat it, it is now clear five or six feet from the ground, beautifully waived or festooned.

I like to see the church on one side, standing out boldly, in villages of this description; it acts as a silent monitor, and gives them a stamp of moral respectability, and something for the wanderer from home to rest his mind on. However, I must not find fault, for in the absence of the church, and even water, it is a very pretty rural village, and reflects great credit on the Honourable Mrs. Pierrpoint, who, I was told, is the substantial patron of the school, and the originator of the planting more than thirty years ago. Now, nature has done little for this village. Its beauty consists entirely in its arrangement; for, take away the Elms and the *Pyracanthas*, and place the cottages along the roadside, and it is not worth a passing look. It is not costly cottages that constitute pretty, and, what is equally valuable, comfortable villages; but a knowledge of what its inhabitants really want. The good taste shown here consists in the suitable size of the square, the arrangement of the Elms, and in covering the cottages with such appropriate plants for a rural village. The fine old trees require no grounds; nor yet the grass iron fences to protect it. Here is a place for the old and the young; and the useful appendages to a village—pigs and poultry; all are at home, *for all is liberty here*; just as it should be in every village; and to my knowledge, more than one new one might have been in existence, with noble trees, giving them the stamp of ages, with much less outlay than has been expended in patching and adding to existing nuisances that makes everybody exclaim, "What a pity the village is so much in the way." Here it is otherwise. What a fine place for a cottager's Horticultural Show. There are Nature's parasols for the ladies, and ready-made tents for the potatoes, cabbages, &c.; a good

supply of eatables, with tea, at a cheap rate, two or three fiddlers, and last, not least, in place of flower-pots with plants in them stuck on poles, as my old worthy friend, Mr. Fish, justly complains of in this week's COTTAGE GARDENER, as being out of place, I would suggest half-a-dozen good quarters of bacon, the poles, of course, well oiled, and no ladders allowed.

Who would not be a village maid and swain on that day?
D. F.

DWARF TREES VERSUS STANDARDS.

In a report of the Horticultural Society's Garden, in the *Gardeners' Chronicle* of September 8, it is stated that "Pears and Apples are a good crop on standards, and even the young espaliers are bearing fruit; but there is little on dwarfs, the spring frosts having deprived them of most of their bloom."

In reference to this account, a question is put by an enquirer in the *Chronicle* of the following week, thus:—"Are Apples and Pears, on dwarf trees, less hardy than on standards and espaliers? as the previous observations would lead to such a conclusion." The answer which is given to this question is, that the coldest stratum of air is nearest the ground, and, *therefore*, dwarf trees are most apt to lose their blossoms in very cold, bright spring nights. This is rather a disheartening answer for gardeners on a small scale, who cannot find room for large trees, and who might be desirous to cultivate dwarfs. But is the answer correct? As it is stated that the young espaliers (I suppose of both Apples and Pears) have fruit on them, and contrast favourably with the dwarfs, if these espaliers be trained in the ordinary fashion they must be as near the ground as dwarf trees, and ought, one would say, to have suffered similarly, because they have been similarly exposed to the same measure of cold. I, therefore, very much doubt the soundness of the answer. It is evident, as the coldest stratum of air, at night, is that nearest the ground, that this is a *constant*, and not an *occasional* thing; and as fruit-trees, like ourselves, might be termed, to a considerable extent, creatures of habit, and their powers of endurance are necessarily affected by circumstances, we might expect that they would become what the Yankees call "acclimated." Does not this take place, or something like it?

In this part of the country (Kelso), we have this year no Plums, Peaches, Nectarines, and Apricots, or none worth speaking about. The blossom-buds were killed by the frost of last February, and disappeared without expanding. One of my friends, whose garden is nearly 400 feet higher than this, in a letter, the other day, says that his fruit crop is "just so so;" he has *only* got forty dozen Green Gages from his Green Gage tree (and I know it is a small one), and he grumbles rather. He had the frosts of February more severe than we had; yet the blossom-buds of his Green Gage were not hurt, when ours were all killed. I think it evident, that the tree being habituated to the severer cold of a higher elevation, was enabled to bear more than ours in a more favoured climate; and that it had acquired a superior hardihood from its situation. On the other hand, we all know how possible it is to make a plant tender, and unfit to bear any exposure. I had a very instructive example of this a few years ago. To make sure, if possible, of a crop of Plums on a wall, I placed upright boards at certain distances edgewise against it, and put others horizontally upon the top of the upright. This, by itself, I had found to be of use, as I thought. However, to make more sure, I took all my spare frame-lights, and fixed them in front, and the trees bloomed, and set beautifully. I hugged myself on having beat Jack Frost for once. But after the fruit was set, we had one or two smart night frosts, and the whole of the young fruit under the glass was destroyed. On the protected trees there were some stray branches, which were neither under boards nor glass, and on all these exposed branches I had fruit; and another tree, standing in between the protected ones, and which was entirely exposed, bore an immense load. I think I could manage better now; but I cite this example to illustrate what I consider to be a fact, namely, that a fruit-tree does, to a certain extent, at all events, suit itself to its climate.

And, now, to get back to the dwarf trees, as they are held to be in a colder stratum of air at night than their taller kindred; and as that is what they are habituated to, it cannot possibly tell upon them in the same way as if it were only occasional. I, therefore, do not think the reason assigned in the *Chronicle*, for the want of fruit on the dwarfs in the Horticultural Society's Garden, is satisfactory. The truth is, that dwarf fruit-trees very often get small justice. Espaliers are commonly trained on borders; they are one side near open walks; they must be kept in something like order, and they get a fair measure of air and light. Then, standards learn to take care of themselves; they grow up to air and light; and those in an orchard, which get most of these elements, fare best; their roots also spread widely, and in fitting soils get down out of the reach of spades and surface cultivation. Not so the dwarf trees, however; they do not grow high, and their roots do not spread far, and people take advantage of their stature to stick them into the ground anywhere; or to crowd them too much together; or to cultivate other things amongst them, which choke them, which rob them of water, nourishment, and air. Give dwarf trees fair play; do not crowd them, and do not worry them with cultivating other things amongst them; expose them fairly and fully to light and air on all sides, and throughout, and prune properly, and no person need be afraid of trying their cultivation, though it be a fact, that the coldest stratum of air, by night, is nearest the ground.

Having been from home at the time I read the notice in the *Chronicle*, I went into my Orchard on my return, to see how matters stood there. My dwarf trees are, properly speaking, bushes; nearly all branch from the ground, and many are not three feet high; several about two feet. There are plenty of them full of fruit down to the ground, even upon the stem. Many of the lowermost branches, which spring almost from the ground, are lying on it with the weight of their loads. Wherever there are spurs low down, they are just as full of fruit as any part of the tree at any height; and some of the finest specimens of fruit I have, both of Pears and Apples, are growing close to the ground, or actually lying on it. I have never yet been able to see that the tall trees set their blossoms better than the dwarfs. My experience is rather the other way. If a tree can get what it requires near the ground, that is, light and air, and abundance of these, without being lifted up twenty feet high, is it not better that it should be allowed to lie near the ground? A low tree has many advantages over a tall one: it is perfectly manageable; can be as well kept as an espalier or wall-tree; can be summer-pruned and autumn-pruned, and root-pruned, if needed, or lifted; can have its fruit thinned, or its powers assisted by liquid-manure or guano, at a very short notice; keeps its fruit till it be ripe, in spite of winds, and its produce can be handily gathered; and of all those sorts which I am able to compare the fruit on the dwarf is finer than on my standards. Last night the wind was high, quite enough so to have cleared standards of their load; by good fortune, mine had been cleared before; and I thought the dwarfs, which were still unplucked, would have shaken their fruit; yet, from thirty dwarf trees, which had not been gathered, and nearly all heavily loaded, the shaken Apples did not amount to one dozen. I have plucked several of these trees to-day, and the fruit was so ripe as to part with a touch. The little trees have no long swinging branches to wallop their fruit off, but stand as firm as Oaks against the wind. They are certainly the most advantageous and most suitable things for small gardens, and many large gardens which I have seen, would gain by having them instead of those huge standards which are so often found choking the various crops of vegetables, and shaking off their fruit at every blast of wind.

I beg to apologise for writing so much to you, who know so much. I have been plodding my way myself to the little knowledge I have, but claim credit for being a *working gardener*, as all my trees are entirely attended to by myself, for I never allow anybody to meddle with them. Experience is but a slow teacher, but sure, if we understand her.—B.

VEGETABLE CULTURE AND COOKERY.

BEET.

It is not easy to say what sort of Beet is the best; every respectable seedsman has a stock of his own, which, if he is careful in selecting, is good enough for any purpose; but some pay more attention to these matters than others, and there are many who take a pride in having selected stocks of some sorts of seeds which they do not distinguish by any particular name. A good sort of Beet should have the root of medium size, of a very dark purple, or bright crimson colour, and the top very small. Some sorts there are which more resemble Mangel Wurtzel than Beet, with their large and coarse roots, and long, thick, shanky tops. There are varieties, however, which are distinguished by name, and which may be grown with satisfaction when they can be obtained true; such are the small-topped *Red Castelnaudary* (there is also a *Yellow Castelnaudary*); the *Mulberry*, which is of a fine dark Mulberry colour; *Whyte's Crimson*; and the *Turnip-rooted Bassano*, a very fine, small turnip-rooted variety, the skin of which is red, and the flesh white, with rose-coloured veins. But if there is any difficulty in procuring either of these, by asking for a fine, dwarf-topped, dark-coloured Beet, every purpose will be served.

In February have the ground dug to a good depth, and dressed with well-decomposed manure. Early in March level and break the surface, and draw drills a foot apart from each other, and about an inch deep, in which let the seeds be thinly sown, and then covered in with a rake. When the seedlings have acquired two or three broad leaves, thin them out to nine inches or a foot apart; and let them be occasionally hoed during the summer to loosen the earth about them; and in September or October they will be ready for use. In November, if the weather is dry, the ground should be cleared, and the roots stored in some dry place, among dry sand, when they will keep sound during the winter; but in taking them up be careful not to break or otherwise injure the roots, so as to cause them to bleed.

The Beet is considered by physiologists to be much more nutritious and wholesome than Parsnips, Carrots, or Turnips, and it is surprising that its cultivation in this country should be so limited. The most common use to which it is applied is as a pickle, or boiled and sliced to be used in salads, for garnishing, and for eating with oil, vinegar, and spice.

TO BOIL BEET.—All who have been in the habit of boiling Beet-root must have remarked the peculiar earthy flavour it possesses after it is cooked. To remedy this, proceed as follows:—After having carefully washed the roots, roll them in a very thin paste made of flour and water, and wrap them in a cloth, in the same way as for a pudding, and so boil them. By this method they will be found to be much sweeter, and more free from the disagreeable flavour than when cooked in the ordinary way. Great care must be observed in cleaning Beet-roots not to injure the skin, to break any of the small fibres, or, in cooking, to probe them with a fork; otherwise, in boiling, they will “bleed,” and the colour will be destroyed. The usual time required to boil them varies from an hour-and-a-half to two hours-and-a-half, according to the size.

TO BAKE BEET.—This is also a good way to cook this excellent vegetable, by which method it is very rich and sweet in flavour. Wash and wipe the roots very dry, taking particular care not to injure the skin or small fibres; then lay them in a coarse dish, and bake slowly in an oven for two hours-and-a-half or three hours-and-a-half, according to the size.

TO STEW BEET.—Bake or boil the roots tolerably tender, and let them remain till cold, then pare and cut them in slices. Stew it for some time in good gravy, which thicken with a teaspoonful of arrowroot, and just before taking it from the fire, stir in half-a-cupful of cream, and about a tablespoonful of vinegar.

TO FRY BEET.—Take roots which have been baked or boiled tender, and cut them in slices a quarter-of-an-inch thick; then dip the slices in batter which has been seasoned with salt, pepper, and a little nutmeg, and fry them with butter, or olive oil; when dished, squeeze a few drops of lemon juice over them. Or, cut the roots in slices the long way, from a quarter to half-an-inch thick, and dip them in a

paste made of flour, cream, the yolks and whites of eggs, and seasoned with salt, pepper, and cloves; dredge them with flour mixed with bread crumbs and parsley chopped fine, and then fry them in oil or butter.

TO FRICASSEE BEET.—Take Beet-root which has been boiled, and cut it in slices, which put into a stew-pan with butter, parsley, cloves, chopped finely, a little garlic, flour, vinegar, salt, and pepper; stew the whole, a quarter-of-an-hour, and serve with white sauce.

BEET SANDWICH.—Take Beet which has been fried as directed above, and lay it between bread and butter, with a little mustard.

BEET SOUP.—Boil till tender two roots of Beet, and rub off the skin with a coarse towel, mince them finely along with two or three onions. Add this to five parts of rich gravy soup, so as to make it rather thick; then stir in three or four tablespoonfuls of vinegar and one of brown sugar; let it boil, and throw in some fricandellans,* made up in the form of corks, and rolled in flour.

TO PICKLE BEET.—Boil the roots till they are three-parts done, and when a little cool, peel them, and cut them in slices half-an-inch thick, or any other shape which may be desired. Put them into a jar, and pour over them a picklo made by adding to each quart of vinegar an ounce of ground black pepper, half-an-ounce of ginger, pounded, the same of salt, and of horseradish cut in slices, all of which should stand by the fire for two or three days to steep; and then only the clear liquor to be used when cold.—ROGER ASHPOLE.

ORCHARD HOUSES.

MR. FERGUSON'S article, pp. 9 and 10, on the produce, and that of Mr. Fish, page 36, on the structure, of these houses, induce me to give a few words about them, the result of recent experience.

Mr. Ferguson I know to be an excellent and experienced gardener, too much a stay-at-home, perhaps, as most gardeners by necessity are, and this naturally leads to a "leetle" inclination to self-sufficiency, the besetting sin of our craft. He treats Orchard-houses as toys; and first ridicules, and then praises, Mr. Gordon for his attention to his pet trees.

I have only hard facts to narrate, and so I will at once give an account of my culture during the past season, that my produce may be compared with that from walls or trellised Peach-houses.

I have one house appropriated to bearing trees of Peaches and Nectarines. These trees are from three to six years old; the house is about sixty-six feet long, and twenty feet wide, with a central border six feet wide, and two side borders each four-and-a-half feet wide. The central border is fifty-six feet long, and on it are placed sixty trees of Peaches and Nectarines, in thirteen-inch pots. These sixty trees have given, during the months of August, September, and October, an average of two-and-a-half dozen each, or 150 dozen. On the two borders at the sides, forty trees (twenty on each side), have given a crop equal to the central border; thus giving for the whole house 250 dozen of fine fruit of all the choicest varieties known. My Peaches averaged from seven to nine inches in circumference.

The power of cultivating numerous varieties, early and late, from the *Red Nutmeg* Peach ripening in July, to *Pavie de Pomponne* just now about ripening, is something worth thinking about. Can such a prolongation of the season of Peaches and Nectarines be secured from a wall or a trellis of the dimensions of my central border (fifty-six feet long by six feet), on which only four trees can be trained? Is this Orchard-house culture a "toy," or a plaything? "A Scotch" echo whispers, "No, I don't think it is."

Peach-trees, when trained against walls, or on trellises, in a Peach-house, require to be planted about fifteen feet apart, from full and well grown trees, each covering that space,

will give a large quantity of fruit, but it is evident that no great variety of sorts, so as to spread over the season, can be produced. The Peach-house, with its large trees on trellises, is well adapted for the supply of a market, or of a very large establishment, but it is not so pleasant and domestic a mode of growing fruit as that of the Orchard-house, and the trees require a really good gardener to prune and train them properly.

Besides, one cannot walk *among* ones trees and look over every fruit; and then it is tiresome to be obliged to walk always in the shade, and to have always to look upwards and see *not* the "sunny side" of a Peach; and then the house can only be used for one purpose; no Roses; no Strawberries; in short, cultivating Peaches and Nectarines for pleasure, in any other way than in Orchard-houses, is all "leather and prunella," and there's an end of it.

With respect to the proper *Stocks* for Peaches and Nectarines, there are but two sorts of Plums eligible, viz., the *Muscle* and the *Black Damask*. Peach and Almond Stocks succeed well for trees cultivated in pots, as their roots require the warmth of the Orchard-house air; and this leads me to observe, that plunging pots containing Peach and Nectarine-trees is bad practice. The last-mentioned kinds of Stocks are totally unfitted for open air culture in England, unless in a soil of light blowing sand; in such a soil they would, probably, succeed, when trees on Plum Stocks would, to a certainty, blight and die,

Mr. Ferguson's venerable Peach-tree may be productive; a decaying old Oak-tree in a park is a most interesting object, but a decaying and aged fruit-tree has no beauty; and although a market gardener might tolerate it for its produce, it ought not to be in a well-arranged Peach-house. In such a place all should be health and vigour.

In Mr. Fish's notice of Orchard-houses, he mentions that the width of twenty inches from rafter to rafter is too much. This is an error. I have squares of all sizes, and upwards of 10,000 feet, twenty inches by twelve and fifteen inches, placed crosswise, and the laps puttied. I have long since decided that this is the best and most economical size for Orchard-houses. My houses are at the usual angle of 45°, and no damage or breakage from snow or frost has ever occurred. I am quite sure that the last severe winter did not cost me ten squares of glass.

In gardens where the site is suitable, and no convenient wall exists to place a lean-to house against, span-roofed houses are certainly the most agreeable. I have now a regular jog-trot way of building them of two widths. The large span-roofed Orchard-house should be twenty feet wide. Its sides five feet in height, either of boards, with shutters on hinges, or brick three feet high, nine-inch work, and swinging sashes on pivots two feet; its height to the apex of roof ten feet.

Along its centre it should have a row of light iron pillars to support the roof (two inch gas pipes answer well), eight feet apart; its rafters should be four-and-a-half by one-and-a-half inches, twenty inches apart; the glass 16 oz. sheet. A house of this width and construction is light and airy, and forms a most agreeable promenade when the trees are in blossom or in fruit. If made of a greater width, the trees in the centre are liable to suffer from imperfect ventilation. I should add, that the borders should be eighteen inches in height.

The small span-roofed Orchard-house should be twelve feet wide. Its sides four feet high, either of brick two feet six inches, and swinging sashes eighteen inches, or of boards, with a shutter on hinges, one foot wide. Rafters and glass should be of the same dimensions as given above. A path two-and-a-half feet wide along the centre (it may be sunk five or six inches if the soil be dry), and a border on each side raised about a foot, completes the structure. The trees form a beautiful and most interesting avenue, and are always under the eye. A house of this size is not so agreeable for a promenade as the large house, as you cannot walk round your trees; you must go and return by the same path; still, it will be found a most agreeable and useful adjunct to the villa garden.—THOS. RIVERS.

* **TO MAKE FRICANDELLANS.**—Mince about two pounds of tender lean beef, and three-quarters-of-a-pound of fresh suet, then pound it till it be as smooth as a paste, and carefully pick out all the threads and sinews; add four well-beaten eggs, half-a-pint of cream, and as much grated and sifted bread as will make it sufficiently consistent to form into rolls resembling corks, and season it with salt and pepper.

QUERIES AND ANSWERS.

GARDENING.

BELFAST CONSERVATORY FOR THE WORKING CLASSES.

"I take an interest in the management of a conservatory erected her for the benefit of the working classes. The building is ninety feet long, fifty feet wide, and seventeen feet high. The roof (which is on the 'ridge and furrow' principle) is supported by metal columns in the interior of the building. Will you kindly name a few good, easily-procured, climbing plants, suitable for training up the metal columns referred to, and from them to be carried over the glass roof. The place is much frequented during the early spring months, and, therefore, a few evergreens would be desirable. The conservatory is not artificially heated during the winter months.—WILLIAM VALENTINE, *Belfast*.

[We think you could not do better than select from the list of plants given by Mr. Beaton, as flourishing so well in the arcade of the Crystal Palace. We are heartily glad to hear of such an effort for the benefit of the million, and regret exceedingly that frost cannot be excluded by some cheap mode of heating, such as two large brick Arnott stoves. The Yellow and White *Banksian Roses* would have a fine effect on the roof of such a cool house in spring, and so would such kinds as *Fortune's Yellow* and the *Cloth of Gold*. All the *Tea Roses* would thrive well in such a house. We do not recollect any evergreens hardy enough, and that would flower early in spring. The *Chimonanthus fragrans* might be trained as a creeper, and its scent would be delicious in winter and spring. Such climbers as *Clematis azurea* and *Sieboldii* would be quite at home in such a place. It would be interesting to know how the better *Rhododendrons*, *Camellias*, &c., would stand the winter, and bloom in such a house.]

GLASS CASE FOR PLANTS.

"I have a glass case two feet long, one foot high, and fifteen inches broad, and I should be much obliged if you would tell me of some way of converting it into a Wardian Case; and also by your giving me a list of small Ferns that would grow in it.—J. G."

[Has your glass case a zinc bottom six inches deep? If not, you should get one made to fit your glass. Prepare it for the Ferns by first covering the bottom with an inch of broken garden pots; upon them strow a thin covering of moss. Then procure a sufficient quantity to fill it up to the rim of the following compost:—turfy-peat broken into small pieces, and leaf-mould in equal parts, mixed freely with silver-sand. You may procure this of any respectable nurseryman, ready mixed, but tell him not to sift it.

The following Ferns will answer your purpose;—*Adiantum capillus veneris*, *Adiantum cuneatum*, *Grammitis ceterach*, *Asplenium Trichomanes*, *Cistopteris fragilis*, *Doodia media*, *Nipholobolus rupestris*, *Platyloma rotundifolia*, *Lycopodium densum*, and *Lycopodium denticulatum*. Plant them in the soil, and then cover it neatly with small pieces of pumice stone. Give water freely, and allow the leaves and the surface to dry before fixing on the glass. Keep a good look out for weeds and decaying leaves. Keep the soil moderately moist, and lift off the glass occasionally to admit fresh air. Keep the glass quite clear and bright, and in a room where the sun can shine on it till 10 P.M., and where the temperature in winter is just above freezing.]

TIME FOR FELLING TIMBER.

"You will oblige me by stating what are the best months in the year for cutting (or felling) heavy wood, such as *Ash*, *Oak*, *Plane-tree*; and if all at one time?—A SUBSCRIBER."

(The best time to fell *Ash*, *Elm*, *Sycamore*, and *Beech*, is from November to February. The ascending sap is then nearly dormant, and, consequently, the wood is closer, drier, and firmer, and the wood is not so liable to rot so soon as when the felling is done during the growing season. *Oak*,

on account of its valuable bark, is managed differently. When the ascending sap is rising and flowing vigorously, the bark easily separates from the wood, and then the peeling season commences. Some foresters fell the *Oaks* then for the convenience of more easily stripping off the bark; but that method injures the wood greatly. The bark should be taken off, and the trees allowed to stand bare till the autumn. This hardens and dries the wood, and it is improved thereby. Of course, *Oak-trees*, whose timber is valueless, may be felled any time.]

BEETLES IN AN ORCHID-HOUSE.

"As a moderately successful grower of Orchids for the last dozen years, you may judge of my mortification on finding, about two months ago, a large *Beetle*, or *Blatta*, for the first time, in one of my houses. We could not catch him, but now discover that we have a large family. Pray, as soon as you can, give me some advice in your publication.—MOUNT HEATON."

[It is a serious misfortune when the Eastern, or, indeed, any other, Beetle, has found its way into and has bred in the Orchid-house. You have two ways of getting rid of them; namely, by trapping and catching them. The best trap is a common bell-glass, such as gardeners use to propagate hard-wooded plants. Turn it upside-down, and put a small quantity of common beer, sweetened with sugar, in it. Use three or four of these traps, and place them so that the Beetles can reach the edge; they will fall down into them and be drowned. Empty them out every morning, and change the beer once a week. To catch them, make a piece of wood the shape of a small painter's brush without the hairs, stick the blunt, flat end full of pins; then, every night go with a bull's-eye, or any other small lantern, into the house, and look sharply about for the Beetles, and as soon as you perceive one, strike him with your spear and destroy him. With this spear and the trap you will soon get rid of the destructive intruders. You may also try the following:—Get some lard, mix it with arsenic, and put a small bit on the end of some short sticks; place these here and there amongst the Orchid pots; the *Blattas* will feed upon it and die. As this is poison, caution must be used that no animal eats it. Also, place a quantity of slices of Potatoes on the surfaces of the pots; the insects will feed upon them instead of the young roots of your Orchids, and when you go in around with your spear, you will frequently find them on the Potato slices, where you can, if you look sharp, put them to death with the many-pointed spear. The Beetles will not cross water; therefore, any very choice plant may be kept from them by filling a pan of water, turning a pot upside-down in the centre, and placing the choice plant upon it. It is on, as it were, an island, and is secure from their ravages; but you must be careful that no leaves of the plant touch any other plant, or that leaf will be made use of as a bridge over the water by these cunning insects. This war against them must be incessant, for they breed prodigiously. In potting any of your plants, look diligently for them. We have often found them in scores amongst the crocks, and sometimes found their eggs. Their eggs are in a long, brown, shining case. These, especially, when you find them, must be crushed to atoms.

While on the look-out for Beetles, you will, of course, destroy all wood-lice and slugs, which are almost as destructive as the Beetles.

You will find a few toads put into you house excellent allies in destroying those enemies to your favourite and valuable plants.]

BLOOMING FELICITÉ PERPETUELLE ROSE.

"An OLD SUBSCRIBER wishes to know how to make the Rose *Felicité Perpetuelle* bloom. Is it tenacious of being pruned? The one in question has been planted three years; is a fine, healthy plant, and makes fine, long shoots. It is on a trolis, in good soil, and with a south-eastern aspect; but it does not flower."

[Do not touch it, either with the knife or the finger, and it will be in fine bloom next June, and quite time enough, too. You surely do not read THE COTTAGE GARDENER to

good purpose, if you expected a fast climbing Rose, like this, to flower the season after planting. It will not then bloom; and very little, if at all, the third season. These climbers have first to cover a large space, or make a full pillar—then they flower. If you wanted them to flower the first or second year, why not have bought worked plants of them; *Perpetuelles*, and such Roses, have only to make a foot or two of wood and flower soon after; climbers have to grow a long, long way first. After that they are, of all other Roses, the freest to bloom.]

HEATING BY HOT-WATER.

"The boiler is about twenty-one inches long and seventeen over. I had the boiler in the potting shed, and the potting shed was in a line with the house, and the pipes run in a straight direction from the boiler, with a rise of about one inch-and-a-half up to the connecting box, which is about twenty-five feet from the boiler, and then a fall of half-an-inch up to the siphon end, which leaves a rise of about an inch up to the end, which is rather better than sixty feet. These were the instructions of the ironmonger; but the man that set it said the pipes ought to rise suddenly from the boiler. Two things I have to explain. First, is the connecting-box. I am afraid it is a detriment to the heating. This connecting-box acts as supply cistern, with stopcocks, plugs and air-pipe; and I have an air-pipe at the top part of the siphon end as well. The other is the small piece of pipe of one inch-and-a-half, near the boiler. This I put in when I altered it, and since I have done it I have learned, from *THE COTTAGE GARDENER*, that I should never have the smallest pipe in the return. Last winter, when I had the fire on the strongest, the flow-pipe over the one inch-and-a-half piece was very hot, and the one inch-and-a-half nearly cold; so that it is a plain proof that the water never circulated. You will readily say, that it was the small piece of pipe which prevented it from acting; but I have had it in use for three winters, and have never had the pleasure of seeing the water circulate. When I ever got it to the highest power, the water would swell and rage over the connecting-box, and I have had it snap and bang like cannons, ready to drive us all out of the place; but it was a rare thing we could get it up to that power. I have looked into the connecting-box a great many times, but never could see the water circulate—when the water got hotter than usual it began to swell—the reason why the water would not circulate was a mystery to me, and to every one that saw it. I have been thinking of pulling it all down again; but we are so near the winter, which makes it very bad. I thought of rising the pipes a foot suddenly from the boiler; but the pipes are so near the plants that it will make it very awkward. Then, again, I thought of taking the one inch-and-a-half pipe out again; but I have had so much difficulty with it, that I do not know what to do. It is but very little use as it is; for last winter, when I had a fire in it enough to roast an ox, and so hot in the stoke-hole that it scorched my shoes, three feet from the fire, yet if I went inside the house, I found the plants all frozen down even over the pipes. I think this is enough to give anybody a sickener of hot-water. When it acts well, I believe it is the best mode of heating; but I had another house heated with a flue, and when I went into it I always felt comfortable. I am a grower of plants and depend upon them for a livelihood. I have some thousands of pots in my hot-water house, and having such trial as I had last winter makes me quite dread the winter coming again.—T. D."

[We have seen no plan but of the water-pipes and connecting-cistern. From your description, we can see little that is wrong. Are you sure that your small pipe near the boiler has not got stopped or rusted up? A little Sal Ammonia put in the water, now and then, would prevent the oxide of iron forming so as to close the pipe. This rust, and a little sediment, or pieces of string, &c., would soon close up a one-and-a-half-inch pipe. We certainly always advocate the return-pipe being at least equal in size with the flow-pipe; but, before enlarging the one-and-a-half-inch pipe, we would apply a small force pump to it, so as thoroughly to clean it. By the plan, it would appear that you had something like a length of twelve feet

two-inch pipe, connected with an equal length of inch pipe, and that terminating in a connecting-box, and from that box, a flow and return-pipe of four inches, with a semicircular end piece, extended so as to make a length altogether of sixty feet. We presume that the connecting-box is placed where it is, that you may heat the end nearest the boiler, without heating the end farthest from it. Now, the rise of one-and-a-half inch to the connecting-box is all right, as proved by the water throwing itself out there when heated. From that point, an equal decline of one-and-a-half-inch should take place in the return-pipe to the bottom of the boiler; with such an arrangement, you have no occasion for an air-pipe at the boiler. So far, your circulation ought to be perfect; but it will not be so quick, on account of your one and-a-half-inch return-pipe; it would be better if it were two or three. In fact, the most simple mode would have been to have had all the pipes uniform in size; but we have frequently worked boilers with small connecting-pipes to the boiler. Keeping this first part in view, the boiling and great *foaming* of the water, are no proof that your system is wrong, though it may show that your *box*, or cistern, is far too small to enable the water to expand itself without running over. This expansion will always be felt more in proportion to the small size of the return-pipe. We presume there is not so much of the *great guns* when the hot-water is allowed to get along to the farther end from the connecting box. The pipe to the closed semicircular end (which you term a syphon) should not fall in the least, as you have allowed it to do. It should, if anything, be a little higher than where it joins the connecting-box, both the flow and the return, and then the air-pipe inserted at the highest point of the extreme end will ensure circulation. When all is at work, you must not think there is no circulation when the small return-pipe next the boiler is very cool, in comparison of the upper one above it, as before it gets so near the boiler, the water will be gradually parting with its heat during a course of 120 feet. What we advise, then, is, first, force your return pipe, and then enlarge it if found necessary. Secondly, elevate the syphon end of your pipe an inch or two, and place the air-pipe there. Keep the water in the connecting-box as high, or a little higher than the rounded syphon end; and, thirdly, to avoid boilings over at a place so near the boiler, and give the lower pipes fair chance to work, place a large cistern of wood, zinc, or lead, round your connecting-box, large enough to hold two or three gallons of water, so that there may be a connection between the cistern and the connecting-box. We feel we could very soon make all right. Try these, and let us know the result.—R. F.]

ALSTROMERIAS IN WINTER.—CAMASSIA ESCULENTA.—SOIL FOR ROSES.—SWEET BRIAR STOCKS.

"I have a few pots of *Alstromeria* plunged in the open ground; should I put them in a pit, with a slight bottom-heat for the winter? or are they hardy enough to remain as they are?

"I had a few seeds given me, last year, of a plant called *Camassia esculenta*. Is it worth cultivating as an ornamental plant? and is it hardy, or tender?

"I am getting some choice *Perpetual* and *Bourbon Roses*, but am told that I shall not succeed in growing them well, as my soil is too light. Do Roses require a heavy soil? Will the Sweet Briar do for budding Roses on, or is the wild Rose better?—A NEW SUBSCRIBER."

[The *Alstromerias* will most likely do, protected, in the open ground, with dry ashes over them. If placed in a cool pit, with glass over them, they would be safer. Do not give them bottom-heat.

The *Camassia* is a beautiful flowering hulk, allied to *Scilla*, and quite hardy. Sow the seeds in a pan, under glass, and plant out afterwards.

Plenty of dung, dug in, and applied as top dressing, will cause your *Roses* to flourish, even in a light soil; but a little clayey loam would be a good addition to the staple. If your plants are in pots, they had better remain protected in severe

weather in winter, and be turned out in the middle or end of March. If hardy kinds, the sooner they are out the better.

The *Sweet Briar* is a bad stock for budding on.]

GLADIOLI CULTURE.

"I have been much puzzled how to treat Gladioli, of which I have bought great numbers, of various sorts, in the last three years. Not one of them is hardy with me. Even the common, old red were all killed last winter. *Gaudavensis* and its varieties survives tolerably, but I cannot depend upon it. *Ramosus* and its varieties, as well as *Floribundus*, *Cardinalis*, &c., if left in the ground, are two or three inches high by Christmas, and when the frost comes the bulbs rot. Besides this, these sorts, especially *Ramosus*, though they flower well the first year, make their new bulbs so small as to afford no chance of flowering the second year. A bulb of *Ramosus*, for instance, which is three inches in diameter when first planted, produces, after it has died down, three or four bulbs about the size of a small *Crocus*; which, when planted again, break up into still smaller ones. I have tried every kind of made soil and treatment, without success.

"*Gaudavensis*, alone, in the open border, makes very fine new bulbs, which do well; but, as I am always from home when it flowers (in August), I care little for it. *Tusignis* thrives capitally as a greenhouse bulb, and makes good bulbs, but it is far from being hardy with me.—ETON COLLEGE."

[The best account of the treatment of Hybrid Gladioli in the English language, after that which is given in several volumes of THE COTTAGE GARDENER, will be found in the writings of the late Dean of Winchester (Dr. Herbert), and more especially in his treatise on cross-bred plants in his *Amarylhidaceæ*, from which we quote the following, the result of thirty or forty years experience, to which we can testify from twenty years practice by ourselves, as the most rational method to be pursued in the climate of Great Britain:—

"The Hybrid Gladioli," the Dean writes, "of which a large portion are sufficiently hardy, flower about the same time as the Roses, and contribute quite as much in general effect to the embellishment of the garden by their fine colours and profusion of blossom. They succeed very well in the natural soil of the garden at Spofforth, which is a good, yellowish, light loam, suitable for barley, and also in the artificial borders of peat and sand, where, however, in a dry summer, they stand more in need of water. These hardy crosses are between *G. Cardinalis*, *blandus*, *carmens*, *inflatus*, *angustus*, and *tristis*,* and they vary with every shade of colour, from white to scarlet, rose, coppery, and blackish-purple, and some are exquisitely speckled, in consequence of the cross with *Tristis*. They succeed best when grown into a thick tuft, in which state the profusion of blossom is admirable, the cluster of bulbs and the old skins of decayed bulbs permitting the wet to drain away, and preventing the earth from lying too close and heavy on the bulbs in autumn and winter. Clusters have now stood undisturbed at Spofforth above twenty years," (and for twelve years subsequent to this statement,) "with the precaution of covering them with leaves from November to March or April. There is danger in disturbing and parting them, for numbers of them will rot if reset separately; but if they must be divided, it is best to do so in April," (when they are in active growth,) "or if it be done in the autumn, the roots taken up should be potted and turned out again in the spring."

In the severe winter of 1837-8 *Gladiolus cardinalis*, the mother parent of the chief crosses above referred to, stood out, without any protection, at Kilkenny, in Ireland, with Mr. Robertson, nurseryman there, who records the fact in the "Gardener's Magazine" for 1838. In 1841, Mr. M'Kenzie, gardener, at Blair Adam, in Perthshire, writes in the "Gardener's Magazine" for that year, "What flower can surpass the brilliancy of *G. cardinalis*, when grown in luxuriance? Here, like the sun in the planetary system, it is the centre of attraction; for in a space of about twelve feet by seven feet, there are no less than 500 trusses of this magnificent flower, exciting the admiration of all visitors. It is generally considered tender; yet it grows here on an eleva-

tion of about 900 feet above the level of the sea, with little or no protection." In the hard winter of 1840-1, the bed at Blair Adam had no protection whatever, but the bulbs flowered still better, as they always do, the longer they are left undisturbed. We never recollect to have seen a good bloom of Gladioli for the first two years after disturbing the bulbs, unless they were assisted by pot culture, until the flower stems were advancing, or, at least, formed. The propagation and culture at Blair Adam, for many years, were as follows:— "About the beginning of October, when I (Mr. M'Kenzie) wish to propagate them, I take from well-established plants a ball, or cluster of bulbs, about one-and-a-half or two feet in circumference (!) from one side of the strongest plants, and plant them in beds two feet wide, and the plants one foot apart, putting a little sand beneath the bulbs, and in the course of two or three years the beds will be covered with the plants. I plant them about two or three inches deep. In 1839, I planted a bed in this manner, and with as little care as I would take in planting any herbaceous plant, and have given no protection ever since; yet, in both seasons, namely, 1840-1, the bed has been nearly covered with strong trusses of flowers." It must be recollected, that this was planted with large patches of bulbs, in colonies, as it were, without the individual bulbs being separated, and mark the following:—"Last spring (1841), I separated a large ball of bulbs, and planted them out singly, and this summer (1841) only two flowers have made their appearance." Of course, the older crosses never do bloom till they are well established; but those of the new strain from *Natalensis*, or *psittacinus*, are more hard, and less impatient of bad treatment. *Ramosus* was the first noticeable flower of the new strain; but it was ushered into the world with a lie, in the "Magazine of Botany" for June, 1839, which says, the plant was a native of the Cape of Good Hope. *Gaudavensis* was the next, and all the bulbs and kinds of this strain, which are not mixed with the blood of *Cardinalis* and its strain, need not be planted-out, or potted, till the end of February, if they have been lifted; but they, too, and all Gladioli whatever, should never be disturbed for a lifetime; those who do so are fighting, as it were, against the air. It is very rare, indeed, that a bulb of any of the race will flower three years running, under the best gardeners; but very few of them should be tried in pots at all. The one or two years' practice, or experiments, on Gladioli, which are recorded in our books, are more likely to lead people astray than otherwise. The quotations given above seem to us as the cream of all that can be found on the subject out of the pages of THE COTTAGE GARDENER. The system pursued in Holland, and for the trade in bulbs, is not applicable here, or to amateurs anywhere.—D. B.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

BEDFORD. November 7th and 8th. Secs., J. T. R. Allen, Esq., and F. A. Lavender, Esq. Entries close October 16th.

BIRMINGHAM. 11th to 14th of December. Sec., J. Morgan, jun., Esq. Entries close November 10th.

DURHAM AND NORTH YORKSHIRE, at Darlington, 6th and 7th of December. Sec., J. Hodgson, Esq. Entries close November 19th.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. Sec. R. Hawksley, jun., Esq., Southwell. Entries close November 20th.

SOUTH DURHAM AND NORTH RIDING OF YORKSHIRE. At Darlington, December 6th and 7th. Sec. Jno. Hodgson.

TAUNTON AND SOMERSET. Nov. 23rd and 24th. Sec. Wm. Buncombe, Esq., Taunton. Entries close November 3rd.

VALE OF AYLESBURY. January 2nd and 3rd. Secs. J. D. Muddiman, and Jas. Allen. Entries close December 20th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

STATE OF OUR VARIOUS BREEDS OF POULTRY.

(Continued from page 61.)

It is certainly a matter of satisfaction, that our estimate of the condition of the *Shanghae* fowl is to be formed at the present time, and not at any preceding period of the

* This was written prior to the strain got from *Natalensis*, which are still more hardy.

last year or so; that the low position they occupied on the Birmingham prize-list in December, 1853, and, indeed, on several other similar occasions, was a just decision on the part of the judges, will scarcely be contested; and, as would necessarily follow, the poultry-yard was as destitute of good specimens as the show-pen. It is not required that all the causes tending to this retrograde course should be enumerated, for one alone may be mentioned as sufficiently accounting for the result alluded to; viz., the sacrifice of size and form for the sake of feather. To get rid of a dark or stained hackle, was an inducement to overlook other properties essential to the breed, and each successive generation, while this mania lasted, brought the race still lower in the scale of departure from its proper standard. But even supposing that such an unfavourable circumstance had not occurred, the Shanghaes would have had great cause to apprehend diminution of popularity, from the already exaggerated statements as to their merits and character that were so unwisely insisted on by many of their early admirers. An infinitely fairer summary, indeed, may now be drawn as to their real value for the poultry-yard, than would have been practicable in the days when the general run of specimens commanded a price of as many pounds as shillings now are not attainable.

The columns of *THE COTTAGE GARDENER*, from an early period, bespoke the attention of all poultry-keepers for these birds, and it may be permitted us to say, that the useful properties that originated the recommendation have now been fully tested and recognised. Correspondents, undoubtedly, detailed marvellous accounts of their production of eggs, economy of keep, and rapid acquisition of weight, which were not found to have been generally realised; but where commendation was restricted to the fact of their being fowls of a highly useful character in many economical points, besides their quiet, stay-at-home disposition, their testimonials may assuredly be endorsed by the experience of the time that has gone by. "*But have we better Shanghaes at the present day than formerly?*" is the question awaiting our reply. Are the characteristics of the breed now better developed, in either the yard or in the exhibition-pen, than we were accustomed to see them on their first introduction into this country? The answer must be a very qualified one, since their numbers have, doubtless, multiplied beyond all precedent in other descriptions of poultry, without by any means giving us a proportionate account of first-rate specimens. In fact, it may be fairly questioned, whether better birds have ever been shown than some of the more celebrated original importations.

Whether Mr. Sturgeon, Mr. Andrews, and others, were so fortunate as to obtain the beautiful specimens that were first exhibited, by some unusual good fortune, or the judicious selection of the persons by whom they were sent over, is a question to which an answer may be given based on the acknowledged inferiority of many subsequent importations. Mr. Sturgeon, especially, if our memory serves us rightly, having stated, that out of a very large number that were obtained by him from China, none were considered by him as worthy to be placed with the original birds that accidentally came into his possession from the captain of the vessel in which they had arrived, and where they were regarded as little, if anything, above ordinary sea-stock.

The preceding remarks apply mainly to the Buff and Cinnamon varieties. In regard to some of the remainder of the class, criticism might hold a different tone; for, while it would appear that we have not gone beyond the original standard of the White bird, as shown by Mrs. Herbert, the Partridge-coloured seem to have certainly gained in both form and feather since their *debut*. Fancy has most pertinaciously turned aside from these last; but where, it might be well asked, can the characteristics of the Shanghae be better developed than in such specimens as have been exhibited by Mr. Hodgson, and some other gentlemen?

Of the Blacks we never thought well; and all that we have since noticed confirms our unfavourable opinion. A vast majority were bred from Buff and White birds, and rarely has a pen been exhibited without glaring evidence of their shortcomings.

A combination of excellence, and aptitude for the circumstances of different poultry-keepers, is unfairly sought in

a single breed. If an extensive range is impossible; if low fences can alone be interposed between fowls and forbidden precincts, the Shanghae may ask for admission, and will fulfil the requirements of his owner better than other breeds. The supply of eggs will not be so numerous as where Spanish, Hamburgs, or the other non-sitters are kept in a proper range, and the chicken will not have their merits on the table so highly estimated as those of Dorkings or the Game fowls. But still, eggs, in fair numbers, and at a season, moreover, when they are most valuable, will be forthcoming, and an amount of food in the chicken, which, if it be wanting in comparison with the flesh of some other races, is, at least, of average merit with the ordinary supplies of most markets. Where fowls for the table are required, and Shanghaes are the birds to which choice is limited, a decided advantage may be gained by placing a Dorking cock with Shanghae hens. A single bird can usually be kept within bounds, and a very superficial observer may readily satisfy himself, that it is the figure of the male Shanghae that is most in fault, which such an arrangement is calculated to rectify. In giving such advice, we must not, however, forget to enjoin, that every individual so descended must ruthlessly be consigned to execution.

Of Grey Shanghaes, by some termed "*Brahma Pootras*," our opinion remains unchanged. Many have been bred by us, and their habits and character, both as chicken and adults, have been closely studied, but without discovering any one particular in which evidence of distinct speciality from the Shanghaes could be recognised. On the contrary, indeed, such investigations have very fully confirmed our earliest impressions of their being one and the same with the latter.

The darkly-pencilled specimens, with pea combs, appear to have the preference; but this must be regarded simply as a matter of taste; and, indeed, even when viewed in this light, our selection would decidedly rest with the lighter birds, where the white is of so rich a tone, and the hackle so delicately marked.—W.

WANDERINGS AFTER THE SUITABLE.

I BELIEVE I have had a "go" at all the various races of poultry; ducks, geese, and turkeys, excepted. No one has had more time, or less money, to bestow on this emulatory science than myself, which seized me some years since whilst staying in a city westward. The thin edge of the wedge was introduced by my purchasing some half-dozen blue *Minorcas* (plentiful as blackberries in this neighbourhood) for 2s. each, to secure fresh eggs for breakfast. Somehow or other, they did not lay to my satisfaction, and away they went to an old woman in exchange for some splendid *Malays*. These got their discharge, as also some *Dorkings*, in very quick time, as kinds requiring more range than my yard, and as manifestly bad layers.

My relations being great sportsmen, and knowing something of the *Game* in their native freedom, they induced me to patronise them; and as their habits are identical, I shall not particularise minutiae. I found them hardy, good layers, but so abominably restless, that after netting the walls, and stopping every aperture to secure them, without avail, I restored them to their pristine farm, not without improving them greatly.

A Poultry Show being held in this city, I went prepared to purchase a pen of birds, and fixed on one, viz., *Gold-spangled Hamburgs*. Very likely, my knowledge of the *Game* kinds allowed me to select a good one, as well as to please the ladies (for they were lovely birds). I kept them two summers, and whether they were old or not, I cannot say; but they were bad layers, and tender. I gained my first prize with them, and found them, as you justly describe, a complete aviary bird.

Then came the other varieties of *Hamburgs*, *Silver* and *Golden*. I certainly profer the properties of the *Silver-pencilled Hamburgs*; but no bird with a white feather can be kept for show purposes in a city, as the soot and smoke indelibly stains them.

Next, the *Polands* occupied my pens. They are very like in their habits the *Hamburgs*—restless, lay late, and give up early.

And now comes the gist of my letter. During these transitions of fancy, I certainly got experience, and lost money and patience. But then "there was a good time coming;" for an amateur, taking a vast fancy for some birds of mine, exchanged for White-faced *Spanish*. These, during the summer, gave me lots of eggs, and of enormous size; but the winter's cold destroyed the best hen, and neither of the others looked as before. I was offered as much as they cost me, and I sold them: in truth, I got afraid of their being too delicate.

After all these changes, the main question is, What birds are best adapted, by their habits and usefulness, to the requirements of a person having a moderately-sized stable-yard in a city, we will say some sixteen feet square? The *Cochins* are invaluable as winter layers, and confinement in no degree alters their virtues as egg producers; but the horrid howl of the male bird makes their presence in a city rather objectionable (this is a drawback). Well, now, if your *Cochin* cock will not allow the neighbours peace and quiet, get rid of him; keep the hens by all means, and take to another quiet, homely sort. Not the *Bantams*: they will not do; not the *Sultan*, the *Chittagong*, nor *Plumiger*; but my first love, the blue, now called *Andalusian*. These I have found to be, when nicely bred, a prolific as well as a handsome bird; and, indeed, I hope next season to rear birds of very large size, and as spangly as a *Hamburgh*. And here I take my stand amid the *Cochin* and *Andalusian*; the latter, hardy, handsome, contented, and prolific; and the former, too well known to be diseased on.

And, as a *finale*, will any one tell me all about an *Andalusian*, &c.? And when he bargains for birds from a distant stranger, how he manages to transact business? I should like to know the fixed rule; it is an important point!—W. H.

DORCHESTER POULTRY SHOW.

If any proof were necessary of the real utility of the poultry movement, and if such were demanded, we might triumphantly point to the manifest improvement in all classes of fowls sent for exhibition; and those who were fortunate enough to be present at the above Show would be witnesses in favour of our assertion, when we say, that there never was an exhibition where inferior birds were so few: almost every class was a task to judge, and much encouragement is afforded to amateurs by the fact, that the prizes and pieces of plate went to all parts of the kingdom. There were thirteen of the latter given for competition, independent of the money prizes; it is, therefore, no marvel if the best birds and best names appeared in the arena.

The agriculturists of Dorsetshire set an example worthy of imitation by their brethren, in the interest they take in their poultry, and in their attendance at the Show, where so much real knowledge is to be acquired on the subject. In a farm-yard, much that is picked up by poultry would otherwise be wasted, or turn to no account; and although many may not feel disposed to study the nicer points of some breeds, or to make fowls a first consideration, yet, if the same can be said of the occupants of the yard and pond, as may be of the fold or stall, that by carefully selecting the breed, the same quantity of food may be made to produce at least a third more than it will if given to inferior animals; then, we think, everybody interested in a farm should visit a Poultry Show, and consider it as a book from which valuable information might be gleaned. Let us, for instance, take the least troublesome of all poultry—Ducks and Geese. Formerly, in moderate condition, the former of the *Aylesbury* breed were considered good if they weighed 5 lbs. each, and the latter 15 lbs. Now, Mr. Davies showed six ducks which weighed 45 lbs., and two geese 39 lbs. Mrs. H. Fookes, who took the second prize for geese, with capital birds, showed a hen turkey weighing 18 lbs. These remarks are useful, if the subjects of them are only considered as articles of food; but it intended for market, whether sold by weight or not, it must be apparent to all that such additions to bulk must greatly add to value.

We will now take a short review of the birds exhibited in the different classes.

There were eleven pens of old *Spanish*, very good birds.

The first prize and the piece of plate were taken by Mr. Davies; the second went to Mr. Plummer. In chicken, Mr. Lock took the first, and Mr. Plummer the second.

The adult *Dorkings* were excellent; but most of them very deep in moult. Mrs. H. Fookes took the first prize, and the cup; the second was awarded to Mr. Davies.

We have seldom seen so good a display of Dorking chicken, and the competition was so close, it might almost be termed "a dead heat" between the first and second pens. They were awarded to Messrs. Loder and Davies.

The adult White *Dorkings*, like their coloured namesakes, were very ragged, some almost naked. Mr. Symonds took the first prize. The chicken made ample amends, and a class of unusual merit deserved richly many high commendations. Mrs. Mills took first; Mr. Bone second.

We always expect superior Buff and Cinnamon *Cochins* in Dorsetshire, and we were not disappointed. Mr. Crane took the first prize and cup for his adult pen, hard run by Mr. Steggall. The chicken were capital, so far as the pullets were concerned; but there is a great falling off in the quality of the young cocks. Mr. Steggall took first; Mr. George Gilbert second.

Lord de Blaquiere took first prize with a very good pen of *Grouse* birds.

The White *Cochin* chicken were good. The prizes went to Messrs. Rodbard and Gandy.

Brahma *Pooltras* were a new introduction to the Dorchester Show; but, nevertheless, they brought twenty-three pens. Two first prizes and the cup were gained by Mr. Davies, and a first and two seconds by Mr. Devenish. Mr. Manfield showed good *Malays*, as usual; but in the adult class he was second to Mr. Buncombe. He took all the other prizes.

There were some pens of *Game* disqualified for legs of divers colours; but good birds were plenty. Messrs. Crane, Ensor (3), and Manfield, had the first prize; and Messrs. Monsey (2), Ensor, and Mew, the second. Mr. Manfield gained the piece of plate.

The Rev. T. L. Fellowes took first and second for Golden-spangled *Hamburghs*; and Mrs. H. Fookes one second. We were sorry to see some hen-tailed cocks exhibited in these classes. Of the four prizes in Silver-pencilled, Mr. Botham took one first, and Mr. W. Symonds, jun., all the others. Need we add, he took the cup.

The first prize for Golden-pencilled were taken by Mrs. Mills and Mr. Mew; both the second by Mr. Manfield. They were capital birds, and Mrs. Mills gained the plate.

Mr. Botham was first, and Messrs. Mew and Henning second, in Silver-pencilled *Hamburghs*.

The Golden *Polands* were not strong either in numbers or quality. Mrs. Mills and Mr. Symonds took the prizes. Mr. Edwards was successful, and had the cup for his black with white topknots. The Silver were very good, and the prizes in these classes were awarded, the first to Mrs. Mills, Messrs. Edwards (3) and Symonds; second, to Mrs. Mills, Messrs. Edwards and Symonds.

There was an excellent display of *Bantams* of every sort. Mr. Goodenough gained the cup. Other first prizes went to Messrs. Leno and Saunders; second to Messrs. Cooper, Leno, and Mew.

Our report will be almost a continued panegyric; but we are bound to say we never saw the *Geese* equalled. Mr. Davies took first with a pen weighing 39 lbs. two birds; and Mrs. Fookes the second, with a pair that weighed 38 lbs.

The *Aylesbury Ducks* were still better, and we must think they have almost reached perfection. Mr. Davies took both prizes with six ducks weighing 45 lbs. The *Rouens* are keeping pace with them, and Messrs. Goodenough and Crane took the prizes. Messrs. Crane and Dale were successful in the other varieties.

There was a cup offered for the best *Cochin* cock, bred in the county of Dorset, and this was gained by Mr. W. Manfield. Another, for the best Dorking cock, by Mr. Henning. One for the two best pens of Ducks, *Aylesbury* and *Rouen*, by the Rev. T. L. Fellowes.

We feel we have hardly done justice to this unusually good Show; but we should tire our readers if we enumerated everything worthy of notice.

The indefatigable secretary, Mr. Andrews, was, as usual, untiring, and successful in his efforts to render the exhibition

both pleasing and comfortable, and the hearty expressions of good will tendered to him by all, while they must have been highly gratifying, were an earnest of continued support.

The Judges were H. Hinxman, Esq., Durnford, Salisbury; E. Hewitt, Esq., Birmingham; and Mr. Baily, London.

THE BIRMINGHAM POULTRY SHOW.

(From the *Midland Counties Herald*.)

THE forthcoming Show will be the seventh held since the foundation of the Society; and while in former years we have had the gratification to congratulate its promoters—and no less the exhibitors in all departments—upon the increasing excellence of the display from year to year, there is no reason whatever to suppose that the Meeting in December next will give less satisfactory proofs of progress.

The Prize Lists for Domestic Poultry afford conclusive evidence that the Council are determined to maintain this part of their Show in the high position which it has reached, and to deal liberally with the exhibitors. Comparing the lists of 1854 and 1855, we find that there is an increase in the gross amount offered for prizes this year, as compared with the last, of £69 8s.; the totals, exclusive of extra classes, cottagers' prizes, &c., being £382 2s. in 1854, and £451 10s. in 1855. This increase has been disposed of partly in the substitution of Silver Cups, of the value of ten guineas each, for vases of the value of seven guineas. Nine of these cups are offered this year, namely, for the best pen of Pencilled Hamburgh, Spangled Hamburgh, Polish, Spanish, Dorking, Cochinchina, Game, and Gold or Silver Bantams; and for the best four pens of Pigeons of different varieties, to be exhibited specially for this prize. The addition of the Bantams and Pigeons to the list for extra distinctions has been most favourably received by amateurs; and it is expected that the entries of Pigeons will, in consequence, be greatly increased in number, and that a finer collection will be brought together than on any previous occasion in this country. Mr. Ottley, the medallist, also offers a gold medal, value *ten guineas*, for the best pen of Polish Fowls, to be selected from all the classes of this beautiful variety; and the fortunate winner of the medal will also carry off one of the Silver Cups—two distinctions greatly exceeding in value any prize which has been hitherto offered for competition. A second class has this year been added for Geese, the first being devoted to whites, and the other to grey and mottled birds—a division which the experience of the last Show proved to be absolutely necessary. Another change has been made, which will certainly lead to an increase in the sales of Poultry—a matter of much importance to all who are interested in the success of these meetings. It is explained as follows in the Prize Sheet:—"The Council have determined, in order to encourage the sales of Poultry as much as possible, to permit the division of the birds in each pen, so far as to allow of the cock, or the three hens, being sold to different persons. The price of the cock, and of the three hens, separately, must be stated upon the certificate of entry, in accordance with the instructions issued therewith." Since the Prize Lists were published, in February last, attention has been drawn to the fact that no authority is given to the Judges of Poultry to decide upon the correctness or otherwise of the ages of fowls, as entered in the certificates; and this subject was brought before the General Purposes Committee, at a meeting held on Thursday last, when the subjoined resolution was unanimously adopted:—"That it be an instruction to the Judges of Poultry to take into consideration the ages of the fowls sent for competition, as set forth from the certificates in the books prepared for their guidance; and if perfectly satisfied that in any case the age has been incorrectly stated, to disqualify such fowls. And that no appeals from the decisions of the Judges shall be entertained, either with regard to disqualifications on account of age, or in consequence of the entries having been made in a wrong class, or upon any other grounds whatsoever." This regulation will assimilate the practice in the Poultry Show with that which has been in operation from the commencement with regard to Stock; and although we have no grounds for suspecting that any misrepresentations are contemplated or will be made, it was necessary that the Judges should be

armed with power to deal with and check any possible irregularities in an essential particular. We shall give further particulars next week.

N.B.—The entries close on the 10th of this month.

PIGEONS AT THE ANERLEY POULTRY SHOW.

IN your impression of the 16th ult. your correspondent, "Mr. B. P. BRENT," gives me credit, in part, for my remarks, some three weeks since, on the above subject; but differs with me in the most essential point, that of the Judge's decision; inasmuch, as he considers Mr. Eaton's pens all contained high fancy birds, viz., Carriers, Pouters, Almonds and Black Mottles. I admit (according to the entry) they were high fancy birds by name, but by name only; as I beg to inform Mr. B. P. Brent, for his future guidance, that the pen of birds, which he calls Carriers, were nothing more than inferior Horsemen; and those termed by him Black Mottles (at any rate, the cock bird), was what any experienced fancier would designate a Griggle or Splash (certainly not a Mottle); and I still maintain, that as there were other birds exhibited which were far superior of their kind to those abovementioned, they were most certainly fairly entitled to the award. Had the Committee specified that four pens of birds, similar to those exhibited by Mr. Eaton, were to be shown for the cup, the Judge could have given no other decision than that which he arrived at; but as the Committee offered the prize for the best four pens *of any varieties*, it is quite clear it was the province of the Judge to award it to the best four pair of birds of their respective kinds, be they what they might.

As I have before stated, there were several gentlemen present (one of whom has been a fancier for the last fifty years) who are quite willing to bear testimony to what I have stated.—JONES PERCIVALL.

[We think all the good that can be hoped for in this discussion is attained, and it had better cease.—ED. C. G.]

SPANISH AND POLAND FOWLS.

YOUR correspondent "SENEX" fancies he sees a loop-hole in the communication of "W.," and, therefore, has a shot at him. Will you allow me to have a shot at each of them?

I agree with "SENEX" that Minorcas, so-called, are but ill-hred Spanish; but I must differ entirely with him respecting his assertion, that it is "unquestionable that in every brood, or even from the best parents, there will be almost as many red as white-faced, or, at least, very partially white." I should at once come to the conclusion that "SENEX" cannot have been a great breeder of Spanish fowls, or, at any rate, that they cannot have been bred from the best parents; my experience so totally denies the fact. For some years past, I have annually bred a large number of Spanish chicken, and I have not, in any instance, bred what would be termed a red-faced bird, and such as are usually called Minorcas, from birds possessing any merit whatever as exhibition birds. I am free to confess that all the chicken are not of equal merit, and that many may be produced from first-class birds which would be useless to exhibitors; but the parent stock must be poor, indeed, when the stock produced have "red or *very partially* white faces." I have now a great number of Spanish chicken, which are the produce of my own stock, and from which no inferior bird has yet been withdrawn, and I cannot find one chick which would come under the term "red-faced," though I am not so sanguine as to believe that all will be as thoroughly white around the eye as to make what are termed first-class stock.

And now let me just add one word to "W.," as regards the character of *Polands*, which he states are better suited to the aviary than the purposes of economy. They are, and have been, proverbially good layers, which point is the greatest desideratum for parties who wish to make poultry remunerative, without regard to fancy. I keep a large number of this class of birds, and find they produce quite above the average quantity of eggs.—ONE IN THE RING.

THE HOUSEHOLD.

(We shall be much obliged by any of our readers sending us approved receipts in cookery, hints for household management, or any other domestic utilities, for insertion in this department of our columns.)

This being a period of the year when APPLES are becoming ripe, and they are within the means of every cottager to procure, their importance as an article of food cannot be too well known. I have often noticed, with surprise, that even a baked Apple, in a labourer's cottage, either for supper or dinner, is hardly known in this country; in the South of Europe they are in common use; and even in the northern countries, Denmark, Sweden, and Norway, though not so fine as in the south, are often to be found on the tables of the wealthy, as the evening's repast. I cannot more forcibly explain the relative qualities of this fruit, than by translating the remarks of a well-known author on the digestive qualities of food. He remarks, that Apples contain a large proportion of sugar, mucilage, and starch, in which are combined those acids and aromatic principles, which, to persons in the habit of eating animal food, tend to prevent its putrefactive tendencies, and act as refrigerent tonics, and antiseptics, and tend greatly to promote digestion. To those constitutions having a tendency to gout, a walk of half-an-hour before breakfast, and the mastication of a good Ripston Pippin, would materially aid in preventing it.

I will now add a few recipes, which, perhaps, may not be novel to some of your readers, but as they are not common in cookery books, may be of service to a few of them.

I will begin with a dish I had this day; what name to give it, I do not know. If the gallant "Chef de Cuisine," who dates his letter to the *Times* from the "Guards Camp before Sebastopol," was at my elbow, he might find as beautiful a name as the dish is in appearance.

Boil one pound of Patna rice (well washed) in plenty of water; when well boiled, but not too much, add one ounce of butter, and stir it round, then add one tablespoonful of sugar; the rice should not be boiled in more water than it will consume. Peel and slice six Apples, take out the core and pips, put them in a stew-pan with six slices of Beetroot, and a pint of water; stew until all is tender, mash them up with a little butter and sugar. The Beetroot ought to have given a nice pink colour to the Apples, and improved the flavour. When done, place the rice which is ready on a dish, form a well or hole in the midst of the rice, in which place the Apple; have ready a small quantity of sauce made with a little cream, butter, and sugar, which pour over the rice, and serve.

STEWED RED CABBAGE AND APPLES.—Well wash and cut up a good-sized Red Cabbage; peel its weight of Apples, slice and take out the cores, put them into a stew-pan, together with a piece of butter and very little water; in lieu of butter, a piece of bacon; stew them gently by the side of the fire until quite tender; stir and mix well together, season with pepper and salt, and serve either under roast pork, or pork chops, or warm a piece of pork, previously cooked, in the stewpan with it, and serve.

SAUSAGE, APPLE, AND ONION PUDDING.—Line a pudding-bason with some pudding paste in the usual way to make a meat pudding; place on the bottom a layer of slices of Apples, half-an-inch in thickness, then a layer of sausage-meat, then one of slices of Onions—Spanish are preferred—then Apples, sausage-meat, and Onions, until the bason is full; season with pepper and salt between each layer, cover over, and tie up in a cloth, and boil; the time will be according to its size.

APPLE JELLY.—In your paper of the 16th of October, you mention a good Apple Jelly. I have tried it, and found it excellent; but I would, instead of using so much sugar, use the sweet Apple, and to every pint of syrup add half-an-ounce of gelatine, and then you obtain a beautiful jelly; or put it into shallow tins and dry it, and an excellent jubu is produced.—G. W.

LONDON MARKETS.—NOVEMBER 5TH.

COVENT GARDEN.

Prices remain the same as last week, and there is still an abundant supply of all kinds of Fruits, Vegetables, and Flowers. *Jersey Chautmontels* have arrived, many of them now in condition for use; and samples of *Newtown Pippins*, from America, have been submitted to buyers. *Grapes* are still very plentiful. *Pears* and *Apples* abundant.

FRUIT.

Apples, kitchen, per bushel	2s. to 4s.
" dessert	4s. ,, 6s.
Pears	4s. ,, 8s.
Peaches, per doz.....	5s. ,, 8s.
Nectarines, per doz...	2s. ,, 3s.
Plums, per sieve	4s. ,, 8s.
Pine-apples, per lb...	4s. ,, 6s.
Grapes, per lb.....	1s. ,, 6s.
Foreign Melons, each	2s. ,, 6s.
Figs	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 22s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts	—

VEGETABLES.

Cabbages, per doz. ..	9d. to 1s.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	2s. ,, 4s.
Brocoli	1s. ,, 2s.
Savoys	—
Greens, per dozen bunches	2s. ,, 3s.
Spinach, per sieve....	1s. ,, 2s.
Beans	—
French Beans, per half sieve	2s. 6d.
Scarlet Runners ..	1s. 6d. ,, 3s.

Peas, per hushel	3s. ,, 5s.
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz.....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per ewt. ..	3s. ,, 6s.
Turnips, per bunch ..	2d. ,, 3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s. 6d.
" Cabbage.....	6d. ,, 8d.
Endive, per score....	1s. ,, 1s. 6d.
Celery, per bunch....	8d. ,, 1s.
Radishes, Turnip, per dozen bunches	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet	2d. ,, 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	—
Sea-kale, per punnet	—
Rhubarb, per bundle	—
Cucumbers, each	3d. ,, 8d.
Vegetable Marrow, per dozen	6d. ,, 1s.
Tomatoes, per punnet	1s. ,, 2s. 6d.
Mushrooms, per pottle	1s. 6d. ,, 2s.

HERBS.

Basil, per bunch	4d. to 6d.
Marjoram, per bunch	6d. ,, 9d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch ..	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch ..	2d. ,, 3d.
Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, NOV. 2.—The arrivals have not greatly increased since Wednesday. This morning the change to dryer weather imparts rather a better tone to the Wheat trade, and prices are fully as good as on Monday. The finest sorts of Barley bring quite as much, but other kinds are very slow. Old Oats as good. New Irish Black Corn does not sell. In Beans, Peas, or other Grain, there is no change, with steady quotations. The arrivals of Seed during last week, although moderate, were fully sufficient to satisfy the demand. From abroad a large quantity of Hempseed was reported, and found a ready sale. This morning there is a fair amount of business doing; Canary seed brings 66s. to 68s. per quarter, and Linseed is fully as high. Mustard seeds are dull at present.

WHEAT.

Kent and Essex, red, per qr.....	84s. to 86s.
Ditto, white	90s. ,, 94s.
Norfolk and Suffolk..	78s. ,, 80s.
Dantzic	92s. ,, 94s.
Rostock	81s. ,, 90s.
Odesa	73s. ,, 76s.
American	92s. ,, 94s.

BARLEY.

Malting	41s. to 45s.
Grinding and Distilling	34s. ,, 36s.
Chevalier	36s. ,, 38s.

OATS.

Scotch, feed	34s. to 36s.
English	26s. ,, 27s.
Irish	30s. ,, 32s.
Dutch Broo	29s. ,, 30s.
Danish	30s. ,, 32s.
Russian	26s. ,, 29s.

BEANS.

Harrow	48s. to 50s.
Pigeon	52s. ,, 54s.
Tick	41s. ,, 42s.

PEAS.

Boiling, per qr.....	53s. to 56s.
Common.....	43s. ,, 45s.
Grey.....	48s. ,, 50s.
Maple	48s. ,, 50s.

SEEDS.

Turnip, White, per bushel	—
Swede	—
Rape	84s. ,, 86s.
Linseed, sowing, qr.	80s. ,, 84s.
" crushing ..	70s. ,, 72s.
Clover, English, redewt	60s. ,, 68s.
" Foreign do.	52s. ,, 57s.
" White	68s. ,, 73s.
Trefoil	28s. ,, 32s.
Rye, per qr.....	52s. ,, 54s.
Tares	46s. ,, 52s.
Winter, bushel ..	8s. ,, 9s.
Canary, per qr.	64s. ,, 72s.
Hemp	54s. ,, 57s.

Linseed Cake, per ton.....	£11 to £12 10s.
Rape Cake	£6 10s. ,, £6 15s.
Indian Corn	47s. ,, 50s.

HOPS.

BOROUGH MARKET, FRIDAY, NOV. 2.—Our market continues inactive, as merchants only now purchase merely for their daily requirements. The peculiar state of the Money and Corn Markets operates prejudicially against the trade, and to effect sales to any extent lower rates are submitted to. Mid. and East Kent, 80s. 100s. to 120s.; Weald of Kents, 70s. 84s. to 95s.; Sussex Pockets, 70s. 80s. to 94s.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.	Meadow Hay, new	95s. to 120s.
Clover, new	120s. ,, 135s.	Rowan	80s. ,, 90s.
Ditto, 2nd cut	90s. ,, 140s.	Straw, flail	30s. ,, 36s.
Meadow Hay	90s. ,, 130s.	Ditto, machine	28s. ,, 30s.

POTATO.

SOUTHWARK WATERSIDE, OCT. 29.—The arrivals during the week have consisted of four cargoes of Scotch Regents from Fife, and liberal supplies per rail from the Northern counties; best qualities have sold freely, but secondary kinds, or those out of condition, have been difficult to dispose of. We have also to note the arrival of two cargoes of Yorks this morning. Kent and Essex Regents, 80s. to 90s.; ditto Shaws, 80s. to 85s.; York Regents, 95s. to 100s.; Lincolnshire Regents, 80s. to 85s.; Wisbeach and Cambridge Regents, 80s. to 90s. Bedford Regents, 80s.; ditto Shaws, 80s. to 85s.; Scotch Regents (East Lothian), 85s. to 90s.; ditto (Red Mould), 90s. to 80s.; ditto (Perth and Fife), 75s. to 80s.; ditto (Diseased), 70s.; Irish Kemps and Clusters, 75s.; ditto White Rocks, 75s.

MEAT.

Beef, inferior, per 8lbs.	3s. 4d. to 3s. 8d.	Mutton, middling 3s. 10d. to 4s. 4d.	
Do. middling	3s. 10d. to 4s.	Do. prime	4s. 6d. to 4s. 10d.
Do. prime	4s. 2d. to 4s. 4d.	Veal	3s. 10d. to 4s. 10d.
Mutton, inferior 3s. 4d. to 3s. 8d.		Pork, large	3s. 8d. to 4s.
		Ditto, small	4s. 4d. to 5s. 4d.

POULTRY.

There has been an ample supply of everything during the week, with a slight improvement in demand. Partridges are becoming scarce.

Large Fowls 4s. 6d. to 5s. 6d. each.	Hares	3s. to 3s. 6d. each.
Smaller do. 3s. 6d. to 4s. ,,	Grouse	1s. 9d. to 2s. 3d. ,,
Chicken	Turkeys	6s. 0d. to 8s. 0d. ,,
Geese	Rabbits ..	1s. 4d. to 1s. 5d. ,,
Ducks	Wild do.	10d. to 1s. ,,
Pheasants .. 3s. 3d. to 3s. 6d. ,,	Pigeons ..	8d. to 9d. ,,
Partridges 2s. to 2s. 3d. ,,		

PROVISIONS.

BUTTER.—Cwt.	CHEESE.—Cwt.
Dorset, fine	Cheshire, fine
Do. middling	Gloucestershire, dble. 70s. ,, 76s.
Fresh, per doz. lbs. 12s. ,, 13s.	Ditto, single
Friesland	Somerset
Kiel	Wilts, loaf
Carlow	Ditto, double
Waterford	Ditto, thin
Cork	Ditto, pines
Limerick	Berkeley, thin
Sligo	

BACON.—Cwt.	HAMS.—Cwt.
Wiltshire, dried .. 80s. to 84s.	York, new
Waterford	Westmoreland
	Irish

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11½d, the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. the 4lb. loaf, while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs 1s. 2s. to 1s. 3d.	Kent fleeces .. 1s. 1d. ,, 1s. 2d.
Ditto Tegs and Ewes	Loicester fleeces 1s. ,, 1s. 1½d.
Half-bred Hogsgets	Long, heavy do. 11d. to 1s.
Do. Wethers	Combing skins .. 10½d. to 1s. 1d.
	Flannel wool .. 1s. 1d. to 1s. 2½d.
	Blanket wool

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

ANERLEY SHOW. — We have received about half-a-dozen letters relative to the Protest at this Show; but as all the parties have had the opportunity of being heard, we now must leave the subject to the discretion of the Committee.

BORONIA SERRULATA (*An Ardent Admirer*). — You will find that most of what you want has appeared in previous volumes; but we will see *what can be done* for you.

HOARE'S SYSTEM OF VINE GROWING (*Chirurgicus*). — We will examine the matter as soon as we can. Correspondents would oblige by referring to the page or the number, it will often save much trouble.

LUCULLIA GRATISSIMA (*Theophilus*). — This will do in a moderately warm greenhouse. We think there was an article on the subject some time ago. A beautiful plant has bloomed well for years in the large conservatory of the Horticultural Society, at Turnham Green. We will think the matter over. You may winter it safely in a greenhouse.

PLANTS FOR A COOL, AND A WARM, GREENHOUSE (*G. F. W.*). — We will try and oblige you, *but such information has been repeatedly given*.

KEEPING A CONSERVATORY GAY THROUGH THE YEAR (*S. D.*). — Much of what you want appeared lately; but we will contrive soon to meet your ease.

EXOTICS (*An Old Subscriber*). — If you would look back a few numbers, you would find lists of plants suitable for the purpose you want. You do not tell us where you wish to place the plants when in bloom, nor the height you require them, though Fuchsias and Geraniums alone would furnish you with a good supply; or with the assistance you speak of. You could have Gesneras, Gloxinias, and Achimenes, only the latter would require to be kept nearer the kitchen fire in winter than the window, in severe weather at night.

POULTRY FOOD (*Subscriber*). — Boiled Rice and Barleymeal we should think a good mixture for laying hens not having a good run. You cannot give them too much green food. We will enquire if there is any alteration about the Birmingham Show admissions.

BOTTOM-HEAT (*D. H.*). — A greenhouse flue will not serve your purpose. When such a flue is required to keep out frost, bottom-heat is not needed; and it would not do to heat the flue when bottom-heat is needed, because then heat is not required to keep out frost. The case for cuttings, mentioned by Mr. Beaton, will be explained about the end of next January.

NUT GROVE (*T. H. B.*). — It is impossible to advise without a better knowledge of the place and requirements.

BIRMINGHAM COLUMBARIAN SOCIETY (*An Old Fancier*). — We have no other particulars.

THUNBERGIAS (*C. H. J.*). — Apply to any of the seedsmen who advertise in our columns.

CATERPILLAR ON PEAR-TREES (*Rusticus*). — It is the Slimy Grub, frequently mentioned by us. Dust the trees with lime. The Gansels Bergamot that is over luxuriant should have all its roots cut through in a semi-circle, three feet from the stem.

HOTHOUSE VINE CULTURE (*J. F. H.*). — Buy the Gardeners' Monthly Volume, "The Vine and its Culture." It is published by Bohn. Price 2s.

FRUIT TREES (*A Subscriber, No thumberland*). — You do not say how many, or what sorts of fruit trees you require. For your situation, which you say is "an east wall sheltered from the north, two miles from the sea," we would recommend the following: — PEARS—*Jargonelle, Beurre Diel, Thompson's, Louise Bonne of Jersey, Knight's Monarch, and Doyenne Gris*. PLUMS—*Orleans, Green Gage, Purple Gage, and Minton's*. CHERRIES—*May Duke, Bigarreau, Elton, and Morello*.

PEARS TO RIPEN IN SUCCESSION (*A Subscriber*). — *Doyenne d'ete, Summer St. Germain, Jargonelle, Williams' Bon Chretien, Beurre d'Amanlis, Jersey Gratioli, Louise Bonne of Jersey, Marie Louise, Beurre Diel, Glout Moreau, Nelis d'Hiver, Beurre de Rance*. We do not recognise the Pear you mention, by the description you have given. Perhaps it is *Williams' Bon Chretien*, if it has a powerful musky flavor.

FRUITS FOR SHROPSHIRE (*R. Williams*). — APPLES for espaliers—*Kerry Pippin, Court of Wick, Early Harvest, Golden Reinette, Braddock's Nonpareil, Old Nonpareil, Cellini, Sturmer Pippin*. PEARS for espaliers—*Marie Louise, Beurre Diel, Beurre de Rance, Beurre d'Arenberg, Beurre d'Amanlis, Jersey Gratioli, Louise Bonne of Jersey, Ne plus Meuris, Nelis d'Hiver, Glout Moreau, Fondante d'Automne, Thompson's*. PLUMS for espaliers—*Green Gage, Purple Gage, Guthrie's Topaz, Kirke's, Coe's Golden Drop, Jefferson*. CHERRIES for espaliers—*Black Eagle, Elton, Knight's Early Black, May Duke, Reine Hortense, Late Duke*. Observe, the above are all dessert fruits. October, and very early in November, is the best time for moving *Conifers*.

NAMES OF PEARS (*A Subscriber*). — 1. Beurre de Rance. 2. Not known. 3. Glout Moreau. 5. Glout Moreau. 5. Eastor Beurre. 6. Beurre de Rance. 7. Nelis d'Hiver. 8. Napoléon. 9. Beurre Diel. 10. Beurre d'Arenberg. 11. Althorpe Crassane. 12. Seems to be Haeon's Incomparable. 13. Not known.

NAMES OF PEARS (*G. H.*). — 1. Marie Louise. 2. Marie Louise. 3. Marie Louise. 4. Beurre Bosc. 5. Not known. 6. Nelis d'Hiver.

NAMES OF PLANTS (*J. P., Penzance*). — There is no such plant as *Tropaeolum macrophyllum*. (*A. D.*) — *Anacyclus aureus* is the plant you have as a *Cotula*. Common soda is sometimes used as a manure, but is very partially useful. Soapsuds are most valuable for the fat and other animal matters they hold in solution. (*H. A. D.*) — Your shrub is *Rhamnus alnifolius*, or Alder-leaved Buckthorn. It must have been derived from some garden.

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WEEKLY CALENDAR.

D M	D W	NOVEMBER 13—19, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
13	TU	Wood-pigeons flock.	30.088—29.828	51—36	S.	—	16 a 7	13 a 4	6 22	4	15 36	317
14	W	Larch leaves fall.	29.598—29.471	45—29	S.E.	09	18	11	7 33	5	15 27	318
15	TH	Apricot leafless.	29.116—29.056	53—30	S.W.	34	20	10	8 59	6	15 17	319
16	F	Beech leafless.	29.207—28.965	49—29	S.W.	02	21	8	10 27	7	15 7	320
17	S	Titmice near houses.	29.407—29.331	49—39	N.E.	08	23	7	11 55	8	14 55	321
18	SUN	24 SUNDAY AFTER TRINITY.	29.828—29.621	44—36	N.E.	—	25	6	morn.	9	14 43	322
19	M	Teal arrives.	30.084—29.993	44—32	N.W.	—	27	5	1 21	10	14 30	323

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 49.1°, and 32.3°, respectively. The greatest heat, 64°, occurred on the 14th, in 1842; and the lowest cold, 15°, on the 16th, in 1841. During the period 95 days were fine, and on 101 rain fell.

THE Great Exhibition for the season of the BRITISH POMOLOGICAL SOCIETY, was held at the Rooms, 20, Bedford Street, Covent Garden, on Monday the 5th inst, which was presided over by Wm. Stephens, Esq., one of the Vice-Presidents, and on whose leaving, Mr. Osborne, of Fulham, was unanimously called to the chair.

There could not be a more convincing proof of the interest which is taken in the cultivation of fruits than was exhibited at this Meeting. It is little more than a year since the Society was instituted, and during the whole of the past season its meetings have been productive of the most pleasing and beneficial results; but notwithstanding the great success which attended all the exhibitions during the past season, there is every probability, from what was witnessed on Monday week, that ere long, the influence it will exert, and the support it will obtain, will be such as far to exceed the most sanguine expectations of its founders. At this Meeting, the quantity of fruit which had been accumulated from all parts of the country, and from some of the most celebrated growers, was such, that it was found to be impossible to do justice, at one sitting, to all the collections which were exhibited.

On the chair being taken, and the minutes of the former Meeting read, the following gentlemen were elected:—

- Ebenezer Saunders, Esq., Chatteris.
- A. Anderson, Esq., Norwood Grove.
- James Girdwood, Esq., Falkirk.
- J. Ferme, Esq., Haddington.
- Dr. Pitman, Sussex Place, Slough.
- Rev. E. H. Kittoe, Chadwell Rectory, Grays, Essex.
- Mr. A. Waterer, Knaphill, Surrey.
- Mr. W. E. Rendle, Plymouth.
- Mr. E. R. Cutler, Lavestock Street, Covent Garden.
- Mr. Thomas Weaver, Winchester College.
- Mr. William Ingram, Belvoir Castle.

The Meeting then proceeded to examine the collections of fruit, commencing with the seedling varieties.

Mr. Brownless, of Hemel Hempstead, sent specimens of his new *Seedling Russet*, which is a very noble-looking Apple, rather rounder in shape than the Royal Russet; but as it was not considered to be in season, it was deemed advisable that no report should be made upon its merits till later in the season.

From Mr. Ingram, gardener to Her Majesty, at Frogmore, there were a number of seedling Apples,

amounting in all to about twenty-five varieties. They were said to be seedlings chiefly from the Golden Pippin and Ribston Pippin. The greater portion of them were well-flavoured, but not remarkable for any extraordinary qualities. One, in particular, *Number 152*, is one of the best Apples we have ever met with. It is roundish, and flattened; skin yellow, with an orange tinge next the sun; the flesh tender, but firm, crisp, remarkably juicy, with a rich aroma. If the tree possesses a luxuriant and healthy habit of growth, this cannot fail to be a valuable acquisition.

Mr. Spencer, gardener to the Marquis of Lansdowne, at Bowood, sent a bunch of new seedling White Muscat Grape, which is called the *Bowood Muscat*. It is a seedling between the common Muscat and the Cannon Hall; but, as it was unfortunately unripe, the Society could not pronounce upon its merits. Later in the season, Mr. Spencer may possibly submit it again, when it can be better judged of. It is perfectly distinct from its parents, and can at once be detected by the peculiar elongation of the berry, which has a long, tapering neck like a Pear, or the Blue Imperatrice Plum. The berries are very large.

Fruit of a seedling Apple, which is growing in a hedge-row of a cottage garden, at Tilehurst, near Reading, was exhibited by Mr. Ward, gardener to W. Stephens, Esq., of Prospect Hill. It is a fine, handsome, firm, and good-looking Apple, with rather tough flesh, but agreeable flavour. From its appearance, it will evidently keep till late in the season, when its flavour will be much better than it is at present. The fruit bears some resemblance to the *Russet Table Pearmain*; but, from what we could judge, is inferior to that variety.

A remarkably fine Apple, called the *Stamford Pippin*, a seedling, sent by Mr. T. Laxton, of Stamford, is particularly worthy of notice. It is large, as much so as a large Hawthornden, and very much of the same shape. It is pale yellow, with a slight orange tinge on one side. The flesh is, perhaps, the firmest of any we have ever seen, but quite tender, and easy of digestion. It is as crisp as an icicle, with a remarkable fine and subdued acid, yet sweet and vinous flavour, and with a pleasant aroma.

From Mr. Player, of Neath, were received specimens of four seedling Apples, beautiful in colour, and of good size, but they were not considered as worthy of further notice. They may do very well for cooking, but are not

equal in merit even to many which are now not considered worthy of cultivation.

Mr. McEwen, of Arundel Castle, as usual, contributed greatly towards the interest of the Meeting by sending a large collection of the Apples and Pears grown in the gardens there. There were twenty-five varieties of Apples, and twenty-six varieties of Pears, all of which were remarkably handsome, and well-grown exemplifications of the different sorts. He also sent fruit of the *Brown Turkey Fig*, grown in turf-pits. They were not large, but very well-flavoured; and we feel assured, if our readers who are interested in the cultivation of Figs could be made acquainted with the treatment pursued by Mr. McEwen, in producing the fruit in such perfection by the means of so cheap an appliance as a turf-pit, they would be induced to follow his example. Specimens of *Rivers' Monthly Raspberry*, laden with fruit, were also exhibited by the same gentleman.

Mr. M. Saul, of Stourton Park, Knaresboro', also contributed a very interesting collection of fruit, from which, no doubt, many valuable conclusions may be drawn as to the varieties which succeed in the northern counties. We remember, last year, the fine specimens from the same gentleman, and the service which was rendered to the Society by the collection.

Mr. Whiting, of the Deepdene, Surrey, sent some excellent specimens, both of Apples and Pears, illustrative of the fruits cultivated in that district, among which we noticed a good specimen of *King Edward's Pear*.

Mr. Spencer, of Bowood, in addition to his new seedling Muscat Grape, had a bunch of the *Black Damascus Grape*, a very late variety, but which was not ripe; two very large bunches of the *Muscat of Alexandria*, well-grown and well-ripened; two *Black Prince Pines*, of enormous size, and one *smooth Cayenne Pine*.

Besides the seedling Apples which were sent from Frogmore, by Mr. Ingram, there were, also, some very fine specimens of Pears from the same garden. We do not recollect ever seeing such specimens of *Knight's Monarch* and *Seckle*, as regards both size and flavour. *Beurré Clangéau* and *Van Mons Leon le Clere* were, also, very fine; but both inferior in flavour.

Mr. Wm. Ingram, of Belvoir Castle, called the attention of the Meeting to the *Sabine Pear*, which he considered to be one of great excellence, and well worthy of universal cultivation. He also directed the attention of the Society to the desirableness of obtaining authentic information respecting the geological formations of the various counties of Great Britain, and the varieties of fruits which succeeded best on these formations. The Meeting were unanimous in seconding Mr. Ingram's suggestions; and after a lengthened conversation, in which several members joined, it was suggested that Mr. Ingram be requested to prepare a report on the district round Belvoir, as a model upon which a general survey of the kingdom may be based; and Mr. Ingram having kindly acceded to the request, it was agreed that his report should form a paper in the forthcoming number of the Transactions.

Among the Pears from standards we observed none which equalled a specimen of *Duchesse d'Angoulême*, grown by Edward May, Esq., of Winchester. It was from a small tree on the Quince stock, growing in a low and damp situation on the banks of the river Itchen, where dense fogs and late spring frosts prevail. To many of our readers, it may be interesting to know that a Pear of such excellence as the *Duchesse d'Angoulême* is, can be produced of such size, in such a situation; and that, notwithstanding the naturally unfavourable position, this variety can be brought to such a state of perfection.

Mr. Rivers, of Sawbridgeworth, interested the meeting much, by a collection of some specimens of new Belgian Pears, among which were *Colmar Navez*, a variety which was said, by Van Mons, to supersede every other in excellence. It was found to be a tender-fleshed and melting variety, exceedingly juicy and sweet, but somewhat watery, and without that richness of flavour and aroma which is desirable in a first-rate Pear; and also *Colmar Van Mons*, *Laure de Glymes*, *Beurré de Launay*, and a very handsome specimen of the *Striped St. Germain*, beautifully banded with green and yellow, and which had been grown on a trellis under glass, as was, also, the *Beurré Gris d'Amboise*, a variety which has been erroneously considered synonymous with Brown Beurré. This last was of exquisite flavour, possessing that peculiarly piquant and vinous "smack" which is so much admired by all those who fully appreciate a really good Pear.

From G. Thoyts, Esq., of Sulhamstead, Berks, there were some of the finest specimens we have ever seen of Pears and Apples. The *Blenheim Pippin*, *Alfriston*, and some others, were unrivalled; while the Pears fully maintained the reputation this gentleman had attained at last year's meeting as a successful cultivator of fruits.

As illustrative of the advantages to be derived from root-pruning, Mr. Ward, gardener to W. Stephens, Esq., of Prospect Hill, Reading, exhibited specimens of *Marie Louise*, *Louise Bonne of Jersey*, *Gansel's Bergamot*, *Beurré de Capiaumont*, *Brown Beurré*, and some others; all of which were well worthy of notice, and exhibited the desirableness, and even the necessity, of such an operation, under circumstances, when the soil is adverse to the production of fruit.

From Exeter, there was an excellent collection of Pears, from Mr. Slater, of that city. But, as our space is so limited, we must recur to a notice of these and several other collections on a future occasion.

Dr. Davies, of Pershore, contributed some excellent specimens of a very valuable and very late-keeping Apple, called *Flanders Pippin*, which was exhibited before the Society last season, as well as several other fruits peculiar to the district round Pershore.

One of the most attractive objects in the Meeting was a bunch of the *Black Barbarossa Grape*, exhibited by Mr. Turner, gardener to — Hill, Esq., of Streatham. It was beautifully grown, and weighed four pounds and twelve ounces. This magnificent fruit was not quite

ripe, though nearly so ; and, from a conversation which took place at the Meeting, it was stated by a member present, that he had the *Barbarossa* in perfection so late as the 10th of April.

From Mr. Cox, gardener to W. Wells, Esq., of Redleaf, Kent, there were some admirable specimens of *Beurré Clairgeau* Pear, and some other varieties, remarkably well grown, which we shall take an opportunity of noticing hereafter.

Mr. Mickle, of Gloucester, nearly covered one end of the room with a collection of the Pears and Apples of Gloucestershire, illustrative of the Cider and Perry orchards of that district. And Mr. Dickens, of Peterston, near Ross, furnished a similar collection from the orchards of Herefordshire.

We find our space too limited to overtake the whole, or even to give anything like a minute description of this vast exhibition of fruits ; but we shall endeavour, from time to time, to give our readers a few observations on such points as may be found interesting.

THE Meeting of THE ENTOMOLOGICAL SOCIETY, on the 5th of November, was an especial one, called in pursuance of a requisition addressed to the President, by several members of the Society, for the purpose of determining the question as to the advisability of the introduction into the Society of a new class of non-paying members, to be termed Associates, consisting of not more than ten in number, being persons of limited means, but who had, nevertheless, deserved well, by their exertions in the Science.

The proposal was moved by Mr. Westwood, and seconded by Mr. Newman, and was opposed by an amendment proposed by Mr. Edwin Shepperd, and seconded by Mr. Pascoe. On being put to the ballot, it was found that a majority of the members present were against the admission of Associates ; and thus a system of exclusiveness, (which has already resulted in the establishment of a separate Society of practical entomologists), has been established, which, considering the comparatively restricted number of the followers of the study of insects, appears to us much to be deplored.

The meeting, subsequently, proceeded to the ordinary scientific business, the President, J. Curtis, Esq., being in the chair. In the absence of Mr. Douglas, Mr. Newman acted as joint secretary. A numerous list of donations of books to the library was announced as having been received from the Smithsonian Institute of Washington, the Boston Society of Natural History, the New Orleans Academy, the Royal Society of London, the Society of Arts, the Entomological Society of Stettin, M. Guerin, Mr. Stainton, &c., and thanks were ordered to be forwarded to the several donors.

Mr. Stainton exhibited various rare Moths of the family Noctuidæ, captured in the neighbourhood of Brighton, by Mr. Winter, having been attracted to sugar daubed upon the trunks of trees ; amongst them was a beautiful species, *Phlogophora empyrea*, a native of France, but which had not been before found in this

country. Also, a remarkable variety of a Butterfly, *Polyommatus Agestis*, marked on the upper surface of its wings like *P. Artaxerxes*, also captured near Brighton, by Mr. Henry Cooke.

Mr. Newman exhibited a remarkable Moth, *Entometa obliqua*, a native of Australia, but which had been reared in this country by Mr. Oxley, from a sack-shaped cocoon ; also, a globular mass of silk, of the size of a boy's marble, which had been spun upon a furze-bush by myriads of a little mite of the genus *Tetranychus*, nearly allied to the common Red Spider of the hot-houses.

Mr. S. Stevens exhibited some rare Microlepidoptera, from the coast of Hampshire, including a new *Tortrix*, from Haling Island, and the beautiful *Tinea Auroguttella*, from the Isle of Wight. He also exhibited a box of very beautiful Longicorn and other Beetles, just arrived from Borneo, where they had been captured by Mr. Wallace ; and gave an account of the comparative advantages of the employment of Camphine Benzine ; and the newly-patented Rectified Borneote of Petrolin, for discharging grease from the bodies of insects, some specimens of which, cleaned by the latter fluid, were exhibited, and which had been completely restored to their original brilliancy.

Mr. Westwood exhibited a specimen of the Rove Beetle, *Velleius dilatatus*, which he had received from Mr. G. W. Johnson, and which had been found infesting the common hive ; its usual habit being to frequent the nests of the Hornet. It appears, however, to be variable in this respect, as Mr. Waterhouse stated that M. Chevrolat had taken it in the holes of the Goat Moth, *Cossus ligniperda*, and a specimen had lately been taken in the New Forest in the body of a dead heifer.

Mr. Westwood also exhibited specimens of the Weevil, *Hypera Rumicis*, with its curious cocoon, reared by Professor Henslow.

Mr. Foxcroft exhibited several boxes of rare insects, which he had collected during the past season in Perthshire. Among them were a large number of specimens of *Cetonia anea*, *Trichius gallicus*, &c.

Mr. Winter exhibited a specimen of the hitherto unique Moth, *Ennomos Alniaria*, and Mr. Syme, the *Spherites glabratus*, a very rare Beetle (hitherto a doubtfully reputed inhabitant of this country), taken in fungi, in Kincardineshire.

Dr. Power exhibited specimens of the rare *Notiophilus rufipes*, as well as a singular specimen of the female of *Hydroporus picipes*, with opaque elytra. The Rev. Hawley Clark, a new British species of the last-named genus, from Mr. Waterhouse's collection.

Letters were then read, addressed to the President, from Mr. Ally, of York, and John Hogg, Esq., F.R.S., on the unusual number of *Moths* which have been observed during the past season, as well as the paucity of *Wasps* ; proving that the extraordinary severity of the last winter was not destructive of insect life.

A note was also read, from A. H. Halliday, Esq., on the *British Ink Gall*, which has been so extremely abundant, during the past two seasons, in the south-

west of England; and which appears to be produced by the *Cynips lignicola* of Harteg, and not by the *C. quercus petioli*, as had been supposed.

HAMPTON COURT GARDEN.

(Continued from page 84.)

ALTHOUGH little or no effect can be produced with any amount of flowers in such a place as Hampton Court, where the flower-beds and borders are already smothered with useless, and very ugly old trees, the gardening part of the business there is much better done than in any of our public gardens, not excepting the Crystal Palace; the beds are nearly as numerous as they are at the Crystal Palace; and, for every kind of plant which is used in the beds at Sydenham, there are four kinds used at Hampton Court; and the flower-gardening at Kew is as that of a cottage-garden, compared with the flower-gardening at Hampton Court.

The best bed of the *Unique Geranium* I have seen, and with which I closed last week, is eighteen feet one way, and fifteen or sixteen feet the other; but, like all the flower-beds here, it looks square, and there is not an inch from the square in all the corners of all the beds there. There was not a leaf in that bed larger than the rest, and the rest were of medium size, such as you would see on a good, healthy pot specimen; and, what is as much to the purpose, there was not a leaf too many in the bed. Now, did you ever see a bed of *Unique* in that condition at the end of September? I never did. Well, that large bed was just as full of bloom as you would like to see a specimen-plant in a pot, and no more. The whole surface of the bed was as the four beds of *Gazania uniflora* at Kew, which I mentioned the other day. This *Gazania*, and that *Unique*, are two of the most difficult plants ever used for a flower-bed, to keep in that style of bloom and growth which we call the perfection of a flower-bed; and the secret about the *Unique* is this:—The plants are more than a year old, and they are all in pots, the pots being plunged out of sight, and the shoots are trained along the surface as soon as they are through the plunging. The size of the pot is the 6-inch over the top, or No. 32; so many of them being sold in the "ciste." Here, then, is a confirmation of the good effects of planting some kinds of plants in their pots; and there are some gardens where most of the *Geranium* tribes would do better that way than in the free soil. Wherever *Geraniums*, or other bedding plants, go too much to leaf, and give but few flowers in the autumn, the plants ought certainly to be kept in the pots; and, for the general run of plants, No. 32-pots seem to be the best size for plunging in beds.

A bed of the *Zelinda Dahlia*, eleven yards one way, and six yards the other, was as rich as any bed could be; nothing but flowers seemed to occupy the whole space, and there was not a flower in the bed three inches higher than the rest; the average height being twenty inches. There never was a bed of Dahlias more rich in dark purple than this. The florists, with all their shapes and circularities, cannot come up to this way of showing Dahlias. To see their boxes of cut-flowers at shows, seems like children at play, as compared to a good bed of Dahlias in a flower-garden. But there is a bright scarlet *Zelinda Dahlia* that will bed just as well as this purple *Zelinda*; it is a little higher than the purple, the flowers are not half the size, but they are on longer footstalks, and in immense numbers in a bed. The style of the growth and the colour being thus so very unlike in the plants, they make a good contrast, let them be ever so far apart, in a large flower-garden.

A bed of standard *Roses*, edged with *Ageratum Mexi-*

canum, eleven yards by six yards; the next bed, five by six yards, was filled with *Lucia Rosea Geranium*, or one of that breed; another, six by six yards, of standard *Roses*, and covered all over with *Mignonette*, shows that two regular crops are taken off one bed in more than one place—a very good practice, to which Mr. Fish alluded some time since;—another bed, five by six yards, was filled with *Cloves* and *Picotees*, leaving it bare in autumn; another bed, seven by six yards, was filled with *Prince's Feathers* and *yellow Marigolds*—not a good combination; the next bed, eleven by six yards, was of standard *Perpetual Roses*, edged with *China Asters* (the *Asters* were very numerous, and particularly good, all over the garden); the next bed, eight by six yards, was filled with *Love lies Bleeding*, and edged with *Caleolaria amplexicaulis*; then, five by six yards of the *White Ivy-leaf Geranium*, and one row of *scarlet Verbena* all round; the next bed, five by six yards, was filled with dwarf *Malmaison Roses* on their own roots. This bed was brimful of large, white, or nearly white, flowers. The next bed, five by six yards, was filled with *Scarlet Geraniums*, and edged with *Flower of the Day*, very rich and gay; then, a bed, six by six yards, of *pink Verbenas*, edged with *white* ones. One of the best *Verbena* beds I have seen this season was of three distinct kinds—*Beauty Supreme* in the centre, *Emma* round it, and a *white* one round the whole; but the three were allowed to run into each other, and the effect was very good indeed. This was in a private garden. The next bed, four by six yards, was of the *variegated Ageratum*, and edged with *Cineraria amelloides*; the next, six by six yards, of *Tom Thumb*, edged with *Culeolaria angustifolia*, very good; the next, six by six yards, standard *Roses*, and the ground covered with *mixed Verbenas*, another double crop, and very good; the next, five by six yards, *Devoniensis Rose*, all dwarf, strong plants on their own roots, in splendid bloom. All the *Roses* do well here in very light soil. The next bed, five by six yards, *Flower of the Day Geranium*, edged with *Mahernia incisa*, an old edging, but making a variety in such a large place; the next bed, six by six yards, of standard *Roses*, the ground covered with *Tom Thumb*, and edged with a *light Verbena*, very good; the next, six by six yards, *Shrubland Rose Petunia*, edged with *Hamlet Verbena*, a fine bed; the next, seven by six yards, all *Heliotrope*; the next, five by six yards, all of the *yellow Alyssum*, in tolerable bloom! How this was managed, I confess I do not know. This *Alyssum* blooms naturally in May only. Probably it could not be depended on for the autumn another year. The next bed, six by six yards, was all of *Andre Verbena*, one of the best, if not the best, purple *Verbena*; the next bed, seven by six yards, *Shrubland Rose Petunia*, edged with *Verbena Defiance*; the next, six by six yards, all of the *variegated Ageratum Mexicanum*, a noble mass; then, a five by six yards bed of *Devoniensis Rose*, followed by a four by six yards *Mountain of Light Geranium*, having a broad band round it of the *variegated Alyssum*. Although the *Mountain of Light* is a better flower than that of the *Flower of the Day*, it does not make such a good bed as the latter; for the flowers of this *Mountain of Light* do not seem to like either much sun or wet. We are still in want of a good *Scarlet variegated Geranium*, with flowers as good and free as *Tom Thumb*, and that will stand all weathers. Of many kinds of *Geraniums* which I tried this season, none stood the rain so well as *Lady Middleton*. One more bed, and I shall be done with their dimensions; it is six by six yards, planted with tall, standard *Roses*, which were mixed with the plain green-leaved *Ageratum*, and a broad edging of *Cineraria amelloides*, with a thin row of *Mignonette* behind the *Cineraria*. An entire bed of the largest size, or thirty-six feet long and eighteen feet wide, filled with *Fuchsia Riccartonii*;—I never saw such a mass of it before; a magnificent bed, sure enough.

Another, of the *Carolina Fuchsia*, was a failure. *Carolina* jilted them at the Crystal Palace, last year, and so she did your humble servant in 1849, as is recorded in one of our back volumes; but *Caroline*, or *Carolina*, will never make a comfortable bed for anyone, though she makes an excellent *greenhouse climber*, a good pillar *Fuchsia*, and one of the best for standards. First, get her up, with a clear stem, six feet high, and then let the head weep down to the ground, like Mr. Rivers' "Weeping Roses." A bed of standard *Roses*, and the ground covered with *Heliotrope*, looked well. A bed of large *blue Irises*, mixed with *Tiger Lilies*, but not in bloom so late. A large bed of the *Globosa major Fuchsia* looked very good. This is, of all the kinds, the very best *Fuchsia* for a bed, and the best of them to bear the knife, and flower the more you cut it; so that, whatever the shape of your bed may be, you can form the outline of this *Fuchsia* with your knife to suit it, and that without making a gap in the mass of flowers; and I believe *Richardsonii* is the same in its habits; but no other *Fuchsia* that I know could be trusted with much pruning. Those who allow their bedding-plants, of any kind, to grow out from the shape of the bed, and think that flowers are too good to do any harm, have something of the secret of successful flower-gardening still to learn.

One entire large bed of the *Variegated Alyssum*, I never saw till that day; and for the centre bed, in a regular figure, I should think it would turn out the very best of all, when there is a large mass of it together. Many of the individual plants make shoots which have none but pure white leaves; others, again, have the leaves more green and less variegated than the usual form of the sport. When all this happens in one bed, the different variations add much to the effect of such a bed, as I can safely affirm from that very example.

A large bed of the common *Nasturtium*, but not managed as it ought to be. If ever you see a leaf larger than a shilling in a bed of this, depend upon it there is something wrong in that garden, at least, in that bed. Every week, from the time it comes into flower till the frost comes, a bed of common *Nasturtiums* wants to be looked over, to keep down the large leaves, to pick off seed-pods, and to train the shoots in the way they should go; and without that attention, it would be better not to attempt the bed at all. Of all the plants, for broad edgings to other beds, this is the richest in colour, if the colour is brought out properly by hand-picking. A bed of mixed *Antirrhinums* going off the bloom. A large bed of the best *Yellow Calceolarias*; the broad-leaved variety of *Rugosa*, called *Multiflora*, by some. This is the best of three yellow varieties of it at the Crystal Palace; but there is a better kind, even than this, at Shrubland Park, called *Corymbosa*. I have not seen it about London, but I had it many years since from Mr. Osborne, at Fulham. A bed of the old crimson *China Rose*, a bed of *Stocks*, ditto of mixed *Dahlias*, of *Anna Boleyn* Pinks, of *Salvia fulgens*, of *Pentstemon gentianoides*; a shot-silk bed of *Verbena venosa*, and *Mangle's Variegated Geranium*. Another failed attempt, for the bed is too large by one-half for the number of plants in it.

But I must stop. I think these were the principal beds; but I have only mentioned about one-fourth or one-sixth of the number of beds; but then, there are duplicates, and others are not so much different from those mentioned as to deserve a special report; still, there are long mixed borders full of different plants, and a conservatory wall and border, right and left, from the Palace front, to the extremities of the garden, and all are as full as they can hold; but mixed borders do not make a striking appearance so late in the season; and I saw no plant that is not in general use, except the single variety of the perennial Sunflower, *Helianthus*

multiflorus, which is a gay, autumn, border plant, and better-coloured than the double one.

D. BEATON.

ARCHDUCHESS MARIA CAMELLIA.—We borrow from the *Flores des Serres* (vol. 8, plate 851), the picture of a new variety of *Camellia*, which is one of the most beautiful, perhaps the most beautiful of all in the class of imbricated-petaled. The boldness of the flower, its fulness, its perfect regularity, and the rich colouring of its ribbon-striped petals of white on carmine ground, justifies all the high praise of which it is the object, and the distinction given to it, in 1852, at the Horticultural Show, at Liege, where it obtained the gold medal. This magnificent novelty came from the seed-beds of a Belgian gardener, M. Defresne, who has sold his whole stock of it to Van Houtte, of Ghent.—(*Revue de Horticulture*.)

THE ORCHARD, OR HARDY FRUIT-GARDEN, IN NOVEMBER.

AFTER winding up the business of the past summer, which, as far as concerns general gardening affairs out-of-doors, may be supposed to take place when the flower masses receive damage through frost, and when the hardy fruits are stored, we may naturally inquire what general policy we had better pursue until the Ice King commences his rigorous reign. Of course, all good gardeners roughly dress their ground at once, and begin to think of increasing the bulk of their compost-yard, by charring and other processes, for now is the time to procure a body of such materials, which will prove of immense service in the coming spring. Let me, then, recommend fruit-tree planting at once, whether in the ordinary Orchard or the kitchen-garden.

I need scarcely urge the benefits derivable from early autumn-planting, where it is desirable to get fruit forwards with the greatest despatch. I am aware that planters still differ as to the relative benefits of the two periods, but I may just remind the readers of *THE COTTAGE GARDENER*, that since the matter has been so ably discussed during the last dozen years, and so many first-rate men have shown forth, by large experience, the advantages of autumn-planting, the opposite party is left in such a sad minority as to render their case hopeless. Certainly, there are cases in which it is expedient to defer the operation until spring, but they are, certainly, the exception to the rule; such a wet and stubborn soil, or the pressure of other affairs, which must and ought to take precedence. Setting aside the latter case, the former may, at all times, be as well met in autumn as in spring. Perhaps, there is no better time to carry out draining, as connected with fruit-tree planting, than during September; and, certainly, soils of a stubborn character may be as well handled at that period as in early spring, when there is every chance of their being saturated with water, or clogged with snow.

I may here stay to advise the young or inexperienced planter to provide against excess of moisture before he proceeds one step; no good fruit-culture can be carried out where stagnation exists. In considering this matter, he must remember not to confound mere retentiveness in a surface-soil, with a wet and sour subsoil; the draining of the one, and the mere improvement of the mechanical texture of the other, are, of course, two operations essentially distinct. I would here suppose the drainage carried out, and the surface-soil so handled, by the thorough working in dry weather, and the proper admixture of opening materials, as to be in a fit condition to receive whatever operations may be considered requisite. Let us here point to the propriety of planting

high, as discussed in a paper a few weeks since. Too much cannot be said in favour of that practice on all retentive bottoms. As contributory to a dwarfing system, too, I consider it indispensable, especially in our more northern counties, or those which possess an excess of air-moisture in general.

Again, let me allude to the immense benefit that would accrue from a more general adoption of the *platform* mode of planting, as one of the essentials of success, where choice fruit-trees are planted in good aspects in kitchen-gardens, and where a dwarf and easily-manageable habit, combined with early fruit-bearing, are required.

In all cases of autumn-planting of fruit-trees, I advise that they be removed with all the roots possible; that care be taken, as much as possible, that the roots are not galled, or rubbed, in any way; and that they are never suffered to become dry for a moment, from the period of removal to their being placed in their final position. I shall be here reminded, that all this is difficult with regard to ordinary labourers; and, in truth, it is; but, at least, such is the course to be aimed at, and he who approaches the nearest will the sooner achieve success. I never tread the soil about newly-planted fruit-trees, neither will I advocate it. It seems ridiculous to hear people talk of treading the soil firm about the roots, who, at the same time, will tell you of how some of their established trees thrive whilst the soil was free and open, and yet fell off when the soil became close. If there were no other means of closing the interstices amongst the roots, why I should, perhaps, thus practice; but there is a much better one. My practice is, to scatter the fresh, or prepared, compost amongst the fibres equally, until the roots are just out of sight; then to take a heavy-rosed water-pot and wash them in heavily with it. As soon as fairly settled, we fill up, covering the whole with six inches more soil than we intend finally to remain. In the month of March, we draw off the superfluous soil, and as soon as the ground is warmed, about the middle of April, apply a coat of mould four inches in thickness.

Now, this watering-in is not puddling, neither intended for it, but simply using water with subdued force to carrying the soil into every crevice.

In planting ordinary Orchard-trees there is no need to be so particular. But although composts, and, in some cases, impervious bottoms, may be unnecessary, from the excellent native character of the soil and subsoil, yet here, too, I beg to recommend, that the trees, in all cases, be kept well up, just in proportion as the soil below is damp, or adhesive, and the air above, owing to peculiar local circumstances, is, on the average, charged with moisture.

In many cases, however, it will be found good practice to use stone, or other material, beneath these, also, whatever people may do in great Orchard districts, which have become so, simply on account of the great natural advantages they possess.

One point I may here again refer to, being strongly impressed with its importance. It is this:—When introducing stone, or other impervious material, to form a bottom, to observe carefully the ordinary level, or, rather, depth, of the true surface-soil; and to take care that the surface of the stone be not an inch lower than the bottom of the true surface-soil. Of what use is it putting stone, if the roots are still to be decoyed into an improper medium?

In all cases of ordinary Orchard planting, it would be well to have the holes excavated, and the soil separated a month or two before the final planting. An opportunity thus occurs of correcting the soil, and of ascertaining the character of the bottom, as to wet, &c.

R. ERRINGTON.

THE PROGRESS OF GARDENING.—It is a doubtful question with some, whether gardening is progressing or not; that it is progressing, we have very little doubt; but to elucidate the subject, let us look around us, and see what has been done within the last few years. To judge of the taste for gardening that is diffusing itself rapidly in the neighbourhood of London, it is only necessary to have visited Covent Garden Market, and to compare the quantity and quality of the supply of flowers and of fruits, &c., during the past season, with what it had been twenty years ago. If his curiosity should lead him on an excursion to the country, either to Wimbledon Park, or Kingston, on one line, or to West Drayton, by another; to Hornsey, by a third; or to Norwood; in short, in any direction in which he may go, he will find the villas, and even whole streets, adorned with their little conservatories, or greenhouses, attached to each dwelling. This, we contend, is the real progress of civilization and of gardening. But we cannot pass over this subject without directing the attention of those whom it may concern, that although we have made some progress in heating by hot-water, the tank system, or Polnaise, nevertheless, there is a field open for some ingenious, practical man to obtain celebrity in devising some simple, economical, and efficacious system (and every system that is efficacious is simple) of heating the small greenhouses, or conservatories, attached to dwellings. But what places the progress of gardening beyond a doubt, in our own day, is the fact that a Crystal Palace was raised before our own eyes, the admiration of the world. We also believe, that the successor that now adorns the heights of Sydenham will give such an impetus to gardening as this country never experienced before. We must brace ourselves up for the race; if we falter, we fall. What man has done, man can do. We see in this land of freedom, of progress, and of civilization, that the highest offices are open to the man of persevering energy and industry. We have an example in our own profession, and in our own times, of a man rising from comparatively humble beginnings to become a Sir Joseph Paxton, and a legislator of his country. It is cheering to us all to know that there is a possibility, if there is no great probability, if favoured by circumstances, and a stern resolution of surmounting all difficulties, by untiring perseverance, of becoming distinguished, and an ornament to our profession. However humble the sphere in which any man moves, or whatever little we strive to do, or however slow our progress may appear, we may be sure that there is no blank in creation that we, each of us, may not contribute to fill up by an idea, or a fact, that will never be lost.

LOOKING AROUND US.

SUCH quantities of inquiries come at this season, that it is impossible to overtake them all at once. I shall try and meet some of the most pressing by the following remarks:—

KEEPING PELARGONIUMS AND OTHER PLANTS IN ROOMS IN WINTER.

It matters not what that room may be called, sitting-room, store-room, garret, or attic, the indispensables for security and health to the plants are, freedom from frost, and a temperature seldom below 40°, as much unobstructed light as possible, change of air, and the proper means taken that the plants are not unnecessarily robbed of their juices by that air being too dry from the quantity of fire used. These conditions secured, all soft-wooded plants will grow as well in a living-room as they will do in a greenhouse, provided they receive an equal amount

of light. This requisite will only apply to as many as can be set conveniently near to a good-sized window. Every young, *growing* plant will suffer when placed at a distance from the window. A room may be easily turned into a hibernatory for plants, although the light be limited, when they are in a state of *rest*, or when, as in the case of *succulents*, they are so nearly inactive as to require little or no water. For instance, *Cactus*, *Mesembryanthemum*, &c., if secured from frost, and kept dry, will suffer little from darkness for two or three months in winter, provided the temperature is not so high as to cause any expansion. In relation to *burying* or covering such growing plants as *Pelargoniums* in attics, &c., the keeping from light must be for as short periods as possible, and, during that time, the temperature must be so low as to prevent growth or expansion, and so high as to keep out the frost. If the alternative is presented of trying to keep such plants in a parlour with a fire *only* occasionally, and in a well-lighted garret with no fire at all, I would prefer the latter, as, in the case of severe cold, the plants could be collected in the middle of the room, and there covered up with hoops, and mats, and hay, or woollen counterpanes made on purpose. In very severe weather, some hot-water bottles, edged in under the covering, would be better than burning any kind of oil lamp, as a correspondent suggests. I have seen plants kept well in such a garret, the living room below being supplied with a fire all the winter, and the chimney passing through the end of the garret.

If such a place was well lighted, a small stove, with a short funnel entering a chimney, would be a good security for plants, care being taken that it was not overheated, and the air made dry in consequence. Where no such conveniences exist, and the rooms in which plants are kept are not regularly supplied with fires, there must be considerable trouble in moving plants from one room to another, according to the weather; all very interesting and agreeable to a thorough enthusiast, but rather tiresome to those who wish the greatest amount of pleasure for the expenditure of the smallest amount of labour. One night's forgetfulness may entail the loss of every favourite. When kept in living rooms, the chief requisites of success are—keeping the plants as close to the window as possible during the day, when the temperature there is not under 40°, removing them to the middle of the room in cold nights, and to the very warmest part, and, perhaps, the protection of a counterpane when very cold, taking care, however, if there is a strong fire during the evening, the plants should stand in as cool a place as possible—from 40° to 45° would suit them; while the domestic circle round the fireplace may be enjoying a temperature of from 60° and upwards. In all such cases, the air will be deprived of its moisture, and the plants will be greatly benefited by a frequent sponging or damping of the foliage, and the keeping of moss or wadding in a moist state over the surface of the soil, which helps to keep a moister atmosphere close to the plants than what they obtain in the rooms generally. This extreme care is only required in cold, frosty weather. While it lasts, it will thus be evident that the plants may delight in the coolest part of the room during the evening, and the warmest part of it during the night. Convenience, and the comfort of the plants, will be greatly secured by their being placed on a table, or stage, easily moved, and with rods over it to permit of a covering being thrown over them, which, while it protects from cold at night, also secures them from dust when the room is cleaned. All young, tender-growing plants require this attention, less or more. As has already been observed frequently, older plants, which can be preserved by keeping the roots or old stems from frost, require only a little of this attention.

For instance, young *Scarlet Geraniums*, though hardier than florists' *Pelargoniums*, require similar, though not so particular, attention, while

OLD SCARLET GERANIUMS

will put up with very rough treatment. The *Harry Moore* system is the best with those growing in pots and boxes; and, provided they are kept dry, and covered over in severe weather, such plants will keep well in garrets and hay-lofts all the winter, with light when the weather is good. In the case of *Scarlets* planted out in the flower-garden, I have adopted a plan with the youngest of them very similar to that alluded to by Mr. Beaton, the other week, and have always been successful, with the exception of last year, and that was not owing to anything wrong in the plan, but to the fact, that the frosts had got at the plants before they were raised. The plants are lifted with a fork, and taken to the rubbish-heap, and there deprived of all the leaves and the soft points of the shoots; these points are then dipped into quick lime, or dry ashes, as a preventive of damping; the roots are then packed into moistish earth, in a pit or a frame, or in large pots, or wooden boxes, to be moved below stages, into sheds, &c., where they can be protected by hay, &c.; but, before finishing them, the moistish soil about the roots is covered over with several inches of the driest soil that can be procured. This farther prevents damp accumulating about the stems—for damp and a very severe frost are the only things to be dreaded. Kept as dry as possible during the winter, if you peel a little bark off, you will find the stems green and succulent below it, though they look just like so many pieces of wood, at first sight. If kept thus dry, and from frost, they will be getting green all over, with little shoots, in March, and by April will require more room, either by transplanting or potting, and for flowering beat young plants out of sight. Putting the roots firmly into moistish earth prevents all necessity of watering, until the young shoots make their appearance, and no sudden check is given to the roots, as respects dryness. I have seen such plants kept well in a good shed facing the south; the only attention they received being opening the door in fine weather, and throwing a little hay over the plants when it was very cold. The plants were just laid in thickly by the heels on the floor, in earth somewhat moist, and dry, dusty soil, with a little quicklime in it, thrown over the surface; it mattering little though a portion of the dry soil covered and lay upon part of the stems. Much of the success under this plan consists in removing every leaf, and having the roots just moist enough to keep them alive, and allow the production of fresh fibres. The absence of leaves does away with the necessity of much light until the fresh shoots break. I never did much good with them in cellars. The drier the place, the better they are kept.

PLANTS IN A GREENHOUSE VINERY.

A correspondent asks about keeping plants in an attic, because his greenhouse is not weather-proof, cannot well be heated, and, besides, heating would be against the Vines. In ordinary circumstances, it would be preferable to make the greenhouse sound, instead of making plant habitations of any room in the dwelling-house. As to the Vines interfering with the wintering of plants, that is a mere delusion that cannot be dispelled too quickly. In many of the largest places the Vineries are just turned into so many storehouses for growing plants; vast quantities of bedding-plants, *Geraniums*, &c., are thus easily kept during the winter. The only thing requiring particular attention is to remove the plants before the heat necessary for the Vines is too much for them. In a Vinery not forced, greenhouse plants may be kept from October to April. A temperature of 45° is quite high enough for all such plants, and that

will exert no influence in starting the Vine buds until the sun gains strength in spring. After that period, either the Vines or the plants must become the principal thing, as one temperature would not be the best for both. When Geraniums and Calceolarias, &c. are gradually removed, tender annuals, and other things, may take their place, wherever light can be commanded. When the Grapes ripen, it will be desirable to have as few plants as possible, and whilst they remain, the bunches quite ripe may be secured by glazed bags of calico or paper. A friend of ours, by using bladders, kept good Grapes until Christmas, though the leaves of his Vines were ripe and removed, and the house filled with plants by the third week in October. The house was crammed all the winter for house and flower-garden decoration, and the hardest being removed under shelter in March and April. Pelargoniums, &c., bloomed on the front shelves in May, and following months, and were removed to the dwelling-house windows when it was desirable to keep the greenhouse closer than would suit the plants, in order to get the Grapes swelled and ripened moderately early. "Keep every garden structure to its legitimate use," is all very well, but few can act up to it; and, least of all, would it be desirable in the possessor of one house. There is nothing to prevent the enjoying the full advantages of a greenhouse during all the dullest and most desolate months of the year, and obtaining a fair crop of Grapes moderately early in the autumn; so early, that most of them may be cut before the house requires to be quite filled with plants. If possible, I should prefer all the Grapes to be cut, and the Vines and house thoroughly cleansed before the plants were admitted. If these are clean, a little tobacco-smoke, now and then, would keep all insects at a distance. Many, with little experience, get shoals of insects to contend with in winter, because, from a mistaken kindness, they keep their plants too close and too warm. Plenty of air, if not below 40°, will keep the plants healthy, and insects, in general, like a much higher temperature. I have met with several instances, this season, in which amateurs kept one out of their two small glass-houses sacred to Vines alone, and I have no right to quarrel with their determination. Were I in their case, I should act differently.

HARD-WOODED PLANTS.

It is hoped that all these, *Ascleads*, *Heaths*, *Epacris*, *Diosmas*, *Podolobiums*, and *Chorozemas*, are safely housed, the pots washed, and every thing clean and neat about them. Some of these will come under particular notice presently. The general treatment they require, is plenty of air when the external atmosphere is above 40°, less, if lower; but the use of a little fire-heat, in preference to keeping the house close. When fire-heat is used, seldom allow it to rise above 45°, with a rise of 10° from sunshine. Use no fire in the morning when it is likely to be sunny. Water only when the plants need it, and then give as much as will moisten every fibre. I say fibre, instead of soil, because, in the case of plants that might have been potted late, the soil will not be fully occupied with roots, and that part should not be kept in a drenched state.

FLORISTS' PELARGONIUMS.

The less these grow at this season, the sturdier and compacter will the plants be, and the better will they bloom. Plenty of air, a temperature at night, from 40° to 45°, and a minimum of the water-pot, are the chief things to be attended to.

HERBACEOUS CALCEOLARIAS.

Keep these growing slowly, and rather moist. A dry atmosphere will cause you to see the Thrip and the Red

Spider. Beware of hot-water in watering them. Let it be cool, if only 8° above freezing, in preference to having it chilled. If grown in a house, the pots had better stand on moist moss.

CINERARIAS.

The same rule applies, with the exception of using chilled water. These will now be growing freely, and if large plants are wanted, the plants must not be stunted for want of pot room.

R. FISH.

SALE OF THE HORTICULTURAL SOCIETY'S ORCHIDS.—This first dismemberment of what should be our National Society, took place on the 7th and 8th instant. There were three hundred lots, including some rare trees, and they were disposed of for £554. The following were some of the chief lots:—

Lot.	£	s.	d.
19. <i>Brasavola Digbyana</i>	3	0	0
28. <i>Delabechea Australis</i> , the Australian Bottle-tree, rare, and <i>Antiaris toxicaria</i> , the Upas-tree, fine	3	0	0
30. <i>Laelia acuminata</i> , very fine	3	10	0
34. <i>Cattleya maxima</i> , very fine	9	0	0
42. <i>Myristica moschata</i> , the true Nutmeg-tree, fine ..	2	12	6
44. <i>Angraecum eburneum</i> , magnificent specimen	7	15	0
51. <i>Aerides Roxburghi</i> , the Ceylon variety, very fine..	5	0	0
53. <i>Aerides crispum</i>	19	10	0
68. Yellow dwarf <i>Jaffna</i> Cocoanut, from Ceylon, very rare	4	0	0
101. <i>Sophranitis cernua</i> , fine mass	3	7	6
110. <i>Oncidium ampliatum</i> , var. <i>grandiflorum</i> , very fine	4	10	0
116. <i>Cattleya crispa</i> , very fine	2	15	0
129. <i>Oncidium guttatum</i> , the best variety, very fine ..	4	10	0
130. <i>Vanda tricolor</i> , finest variety, magnificent specimen	11	0	0
148. <i>Ceroxylon andicola</i> , the Wax Palm.....	4	15	0
149. <i>Laelia anceps</i>	3	15	0
150. <i>PHALANOPSIS AMABILIS</i> . This magnificent specimen was the finest which Mr. Fortune sent home from the Philippines, £68 5s., by the Duke of Devonshire.			
191. <i>Cattleya pallida</i> , fine	5	5	0
203. <i>Sobralia</i> , dwarf variety of <i>S. macrantha</i>	3	5	0
210. <i>Cattleya labiata atropurpurea</i>	4	15	0
218. Yellow dwarf <i>Jaffna</i> Cocoanut, from Ceylon, very rare	6	15	0
221. <i>Masdevallia coccinea</i> ! most rare and beautiful	6	0	0
230. <i>Cattleya Skinneri</i>	9	0	0
236. <i>Lycaste Skinneri</i> , fine	8	10	0
240. <i>Celogyne cristata</i> , very fine	8	10	0
241. <i>DENDROBIUM SPECIOSUM</i> . This magnificent specimen has 124 pseudo-bulbs, and is 4½ feet in diameter. £10. Duke of Devonshire.			
251. <i>Epidendrum myrianthum</i> , most rare and magnificent	4	15	0
263. <i>Cattleya pallida</i>	4	0	0
283. <i>Cibotium Schiedeanum</i> , a magnificent tree Fern	12	0	0
286. <i>Araucaria Cookii</i> , very fine ..	5	15	0
287. <i>Dammara ovata</i> , very rare	4	0	0
288. <i>Araucaria Bidwilli</i> , fine plant	5	15	0
293. <i>Oncidium Skinneri</i> , very fine	4	0	0
296. <i>Laelia anceps</i> , fine.....	10	0	0
299. <i>Laelia anceps</i> , and <i>Laelia Barkeri</i> , very fine	17	0	0
300. <i>LAELIA SUPERBIENS</i> . The finest specimen in Europe of a living Orchid; it has 220 pseudo-bulbs, and is 17 feet in circumference; it is still attached to the block of wood on which it was found growing in the Forests of Guatemala. £36 15s., by — Fairric, Esq., Liverpool.			

THE DUKE OF DEVONSHIRE'S VILLA AT CHISWICK.

(Continued from page 70.)

PASSING from the flower-garden, we came to a building without a roof or windows. I suppose it must have been intended for a conservatory, an orangery, or, perhaps, merely a place to sit down and rest in after walking through the long range of houses. It is beautifully paved inside the walls with different-coloured pebbles, in the Mosaic style. At each end is a dense mass of Yews, so that the building, on being viewed from the walk leading to it, appears like some Grecian Temple without a dome, built on arches. The garden, seen through these arches, has a very fine effect, which is still more heightened, further back, by being seen through a second set of arches formed with Irish Ivy. On passing through both these arches, we arrive at an open grove of tall trees; to the left of which, and close to it, is the mansion, and what may be called the garden entrance. I was much struck by observing how green the turf was under these trees. In summer, the Duke

has several Indian canoes, hammocks, and swings suspended amongst these trees, with which the visitors, on the Exhibition days, in July, amuse themselves. In a corner, between this grove and the garden, is a very fine specimen of *Paulownia imperialis*. It has shown flower-buds, Mr. Edmonds informed me, several years, and was then in bud when I saw it, but the autumnal frosts always cut them off before they expand. This is a great disappointment, for the flowers are produced in spikes, like our Horse Chesnut, and as large as a Gloxinia; the same form, and of a pale blue colour. (I was once told, by the lady of H. B. Kerr, Esq., that she had seen it flowering admirably in the gardens near Lisbon.) Beyond this grove of trees, there is a short avenue of magnificent Cedars of Lebanon (*Cedrus Libanus*). They are the most remarkable trees I ever saw. I have seen as large trees, but none that had their branches so close to the ground, spreading over and covering so large a space. This uncommon circumstance added greatly to their majestic grandeur. They were in flower, and the little, stumpy, greenish-white, incipient cones might easily have been imagined to be some of the elfin tribe, arrayed in martial ranks, ready to march to battle.

Turning the corner of the house, we had a view of a small, winding lake, backed on the other side by a dense mass of trees, chiefly large Elms. Between the lake and the house is a tolerable expanse of lawn. Walking over it, my olfactory nerves were agreeably refreshed by a pleasant perfume. I wondered where it came from, but soon found out it arose from our feet pressing upon the common Chamomile, which grew plentifully amongst the grass. Every body ought to have this dwarf, fragrant herb on their lawn. I was told it was always green in the driest of summers, when the grass was quite brown, with the hot sun above and the dry soil beneath. There are several sweet-scented, close-growing plants, that might be sown with the grass seeds with advantage; the wild Thyme, for instance. They bear close cutting as well as any grass, and their scent is agreeable and refreshing. Opposite the corner of the house, on the lawn, is a very large, handsome Catalpa tree, which flowers freely every year. It is remarkable that this fine-flowering tree is not more common.

Proceeding round the house, we came to the carriage entrance. The Villa, on this side, has a somewhat sombre appearance, which is heightened by another lot of the dark Cedars of Lebanon, two of which over-top it in height, and nearly touch the windows with their spreading branches. They form here another avenue, but are not such fine trees as those on the other side of the house. On one side there is a row of Lime trees. They have been formed into arches with a happy effect.

A walk leads the visitor to a lofty mound, formed with the soil dug out of the space occupied by the lake. From this mound there are several interesting views, both of grounds of the Villa and the surrounding country. In the distance the Surrey Hills are seen. A little further on we came to a rustic tower, formed of the trunks of Fir trees, from the top of which the Crystal Palace bursts upon the view.

A large piece of ground, beyond this tower, has been taken in from the park, for the purpose of enclosing a noble specimen of *Platanus Orientalis*, the Eastern Plane tree. It is nearly 100 feet high, and its branches cover a space ninety feet in diameter. The walk winds on from this tree towards our starting-point. I observed, as we travelled on, an ancient Cherry-tree, no doubt the inhabitant, some centuries back, of some fruit-garden. Its trunk was decayed, and in the centre a Birch tree had, parasite-like, settled in the hollow, taken root, and is now usurping the place and sucking out the life of the Cherry-tree. A few paces further may be seen a remarkable Lombardy Poplar, encumbered with another parasite, the Ivy, which has

so completely clothed it, that only a few twigs of the Poplar can be seen above. Beyond that is a grove of very large Hollies, perhaps the loftiest in this country. One I measured to be fifty feet high. Beyond this Holly grove there are some remarkable clusters of Rhododendrons, which encroach so much upon the walks that it has been necessary to remove the walks backwards several feet several times. They are full of bud, and must make a grand show when in full flower.

The walks bring the visitor to the lawn again, and the first object he sees is a noble specimen of the *Pinus Lambertiana*, said to be the oldest in Britain, and also a fair tree of *Abies Douglassii*, unquestionably the handsomest of the Spruce Fir tribe. Here we arrived again to the ground-covering Cedars. At the end of the avenue, farthest from the house, there is a kind of an alcove. It is nearly circular, and the seats are of stone, or, perhaps, marble. I was told they were the identical seats used in the Senate House at Rome, when she was mistress of the world. Upon these seats sat the world-famed Cicero, the eloquent Brutus, and all the great men of that great era.

I have only now to notice a lofty Yew hedge, inclosing a walk that leads to the kitchen-garden. A finer example of a Yew hedge does not exist.

The kitchen-garden is spacious, and well stocked with fruit-trees. There are some excellently-trained Peaches and Nectarines, and the general management does credit to the gardener, Mr. Edmonds.

Behind the long range of houses there are several small houses and pits, used to raise plants for the front stages of the greenhouse, and to stow away, during winter, the immense number of bedding-plants used for the beds in the flower-garden.

In one low house, I observed a select collection of Orchids, in robust health.

Such are the gardens and pleasure-grounds belonging to this unpretending villa mansion. If any of our readers have half as much pleasure in reading as I have had in writing this brief, and, I must say, imperfect, account of them, I shall not think my labour in vain; but I say—Go and see for yourselves, but not on a Show day; go about June or July, if you wish to see it in perfection.

T. APPLEBY.

NECTARINES AND PEACHES may be cultivated as follows;—Trained to walls; and for that purpose, walls with S.W. or S.E. aspects are required; trained to trellises, in a Peach-house, with or without fire-heat; trained to trellises, under glass lights, after the system of Mr. Ker; and as bushes, in pots, or tubs, in Orchard-houses. In small gardens, where there are no eligible walls, and in situations where the soil and climate are unfavourable, this is a most successful and agreeable mode of culture, at present only in its infancy; for, as with Apricots, large Peach and Nectarine-trees may be grown in boxes, and abundance of fruit always secured, as a climate of a well-built Orchard-house is spring-frost-proof. As large pots are, in some districts, difficult to procure, I may mention a very simple mode of making "tubs," or boxes, for these trees. Some well-seasoned boards of Memel Deal, one inch thick, should be procured, and strongly nailed together so as to make a box two feet over and fifteen inches deep. Deal of the same thickness should be cut into bars, two inches wide, and nailed on the bottom about half-an-inch asunder; this will allow the roots to penetrate into the soil of the border. The boxes should be painted and dried before the trees are placed in them. A box of this kind will sustain a goodly-sized tree, if it has the usual annual surface-dressings, for seven years, or more. I need scarcely mention, that good "heart-of-Oak" will last longer than the best deal boards.—*Rivers' Fruit Catalogue.*

WOODCRAFT.

(Continued from Vol. XIV. page 467.)

FENCES.—In my last paper on this subject, I fully described how to raise, in the shortest time, a good, handsome fence of Holly; but as even that is the best fence, yet it takes, at least, five years to form it effectually, unless the owner should go to the expense of procuring Hollies from a nursery of a proper size at once. Such plants would cost from sixpence to ninepence each, besides the carriage and planting; and as the plants should stand, at least, six in a yard, the expense would be somewhat heavy. Taking these circumstances into consideration, the next inquiry would be, what is the next best hedge plant? Undoubtedly, our common *White Thorn* is the plant for the purpose. When well managed, it is a most excellent fence, as everybody knows; but everybody does not know how to manage it, simple though the matter may seem. I suppose, if I was to tell any farmer that he did not know how to manage his fences, he would set me down for a fool, if not for something worse. Yet it is a fact, that there are very few good Thorn hedges in Britain. I mean, few in comparison to the extent of such fences.

What constitutes a good Thorn fence? I have one, and only one, in my mind's eye, that comes up to my notion of a real good fence, and it has been a good one for more than forty years in my own knowledge. Do not think I am going to sound a trumpet in my own praise; I had nothing to do with either planting it, or taking care of it afterwards. This fence is the boundary of a small nursery in Yorkshire, protecting it from the turnpike road to Roundhay, near Leeds. This nursery was formed, I believe, by a Mr. Taylor, and, of course, the hedge planted by him. It certainly had the advantage of being protected from cattle on the nursery side, and was shielded from them on the road side by posts and rails, with a ditch between. The fence is six feet high, and two feet through at the base. It is of what is called the hog's-back form; but it would be a truly lean hog that had such a back; the letter **A** would be a truer description of it. Imagine that letter six feet high, two feet at the base, and ending with its sharp ridge, and you have a good idea of my beau ideal of a perfect fence, thoroughly impervious to man or beast.

To form such an excellent fence, the same method should be followed in regard to planting as that I described for the Holly hedge; that is, in low, wet situations, a ditch should be dug on each side of the site for the hedge, the soil out of the ditches should be thrown on to the space two-and-a-half feet wide the hedge is to occupy, which soil would raise it high enough to allow dry soil for the hedge to grow in, besides draining the site. This preparing for the plants may be done now, or any time during the summer. Then, as soon as the leaves fall off the Thorns, let them be planted, with a liberal allowance of dung mixed with the soil, to encourage their growth. The expense of the dung would be repaid by the rapid growth of the Thorns.

The question may be asked, what is the best age of Thorns to plant for hedges? I answer, two years' transplanted Thorns are the best; better than younger, and more certain to grow well than older. Two-year-old seedlings would do, if they had not been sown too thick in the bed, though I prefer such as have been transplanted, because they have more fibrous roots. Many planters put in a double row of the quickwood, as it is called, but that is a waste of plants. One row, six inches apart, is quite sufficient, and better, too, for this simple, undeniable reason; that there is more nutriment for one plant in the same space than for two.

The hedge being planted, it should be protected during its young years by a double row of posts and

rails, if exposed to cattle, on both sides; but if next to a plantation of young or old trees, where no cattle are allowed to enter, the outside only need be fenced off. The posts and rails should be, at least, six feet from the quicksets, in order that cows, or horses, could not reach over and browse off the young tops. Some planters recommend cutting off the tops of Thorns at the time they are planted; this, I think, is wrong. The plants ought to have one year's growth to allow the roots to get hold of the soil. Then, in the February following, cut them down to within four inches of the soil. Each plant will then send forth three or four strong shoots, and thus lay the foundation of a thick, impenetrable fence.

The general management consists in keeping the ground constantly clear of weeds, and commencing, from the second year, to form the hedge into the shape above alluded to. By allowing the lower branches constantly to project beyond the upper, they will keep always alive; whereas, if the upright method, with a flat top is followed, the lower branches will die, by being dropped upon and shaded by the upper, and then the bottom of the hedge becomes naked and bare, giving ingress and egress to smaller animals, such as sheep, hares, &c.

If the situation is a dry one, the ditch should be dispensed with by all means. The raising the ground in such a situation is positively injurious to the well-being of the Thorn plants. All that will be necessary will be to trench the same space as that enclosed by the ditches, adding the same dressing of dung, fencing, &c. I cannot find words strong enough to condemn the absurd fashion of placing hedge plants on a raised bank in a high, dry situation. I see miles and miles of hedges so formed in such a situation; but they are never fences. The bank is a division, it may be of fields, or plantations, but it is no fence, nor ever will be. Yet it is the fashion, and, I fear, will be, till more sensible men arise and plant hedges in such situations on the flat, and show, by their success, the folly and absurdity of placing a moisture-loving plant like the Thorn, or the Holly, on a dry ridge of earth.

T. APPLEBY.

(To be continued.)

MUSHROOMS AND THEIR CULTURE.

This singular production, at times, baffles the skill of the most careful cultivator, whilst at other times it yields a large return to the roughest or most unexpected position that was ever tried for their artificial growth. It, therefore, becomes difficult to lay down definite rules whereby a certain supply can be obtained at all times. At certain seasons, say the autumn months, beds carefully made up are almost sure to bear, because at that season they are produced naturally out-of-doors; later on, however, the chances diminish; not but that equally good crops are obtained occasionally in February as in October, but the same treatment will not secure them at that time with a like certainty. All we can do in the way of reproducing the plant is by the mode common to many other plants—a fibrous root running through the ground sends up its produce singly, or in clusters, all around the origin of the spot from which the ramification took place. This fibrous substance, technically called *spawn*, is produced naturally, in great abundance, in some seasons and in certain places; at other times, it is found in dung-heaps which have laid long enough to allow it to properly fix itself, and many good crops of Mushrooms are the result, not the less worthy of attention by coming unexpectedly. These matters, however, all tend to the conclusion, that the propagation and culture of Mushrooms differ essentially from most other plants we are in the habit of bestowing much care on, and that, after all, disappointments now-and-then occur

with the most experienced in such matters; but a little examination into the principles which govern their growth out-of-doors may assist us much in regulating our treatment of those we endeavour to grow artificially.

To make a bed with a view to ensure a crop, procure some good horse-droppings that have not been heated, some sheep-dung that has not laid long on the ground, for the rain to wash away its richness—let these be well mixed, and if there be any quantity of it, let it be turned every day, for a little time; then every two days, as the heat may seem to be, and when it gets so far moderated as to give tokens of sweetness and steadiness, the bed may be made, which, if inside some building where a little fire-heat can be given, need not be more than eighteen inches thick, and as long and wide as required; but if the place be open, and not any means of warming it, a greater thickness of bed, with a more careful preparation of materials, so as to ensure against their overheating, must be resorted to, supposing that a place on purpose is to be had, with shelves, &c., in the usual way. I would, in making up the beds, now-and-then throw in pieces of half-decayed turf, and also pieces of spawn; this is on the supposition that the latter is plentiful, which it ought to be; a good beating or treading is necessary; and, last of all, a good coating of fresh maiden loam from a pasture where Mushrooms are known to grow naturally; this coating, however, had better be delayed a few days, until there be no danger of the bed overheating; at the same time, it must heat a little. Watering should not be done to any extent, except keeping the surface moist, until the Mushrooms appear, when they may have a little; but if the bed seems to do well at first, it would be better to avoid heavy waterings until the bed begins to go off, or partially cease, when a good, heavy watering will sometimes revive it again, and another good crop will be the issue, with an extended season of bearing.

Where there exists no shed, nor out-house, in which to make up a Mushroom-bed, and there is plenty of good horse-dung to be had, a very good bed may sometimes be made against a blank wall, after the dung is sufficiently sweetened by turning, &c., as above, a bed about four feet wide, well trodden down, and built something like a steep-pitched lean-to roof will be; but, in fact, very short dung cannot well be built up perpendicularly, neither would it be so well; for this lying against the wall presents a diagonal surface, which can easily be covered up to any extent; spawning, covering with earth, &c., may be done the same as recommended above, and a deep coating of straw, or litter, will be all that is wanted, examining it, from time to time, to see that the heat does not decrease, and that the fibrous matter of spawn does not expend itself uselessly in running into the litter, which it will sometimes do, to the injury of the crop. Very often a good crop is obtained in this way, the more liberal supply of dung making up, in a great measure, for the want of shelter. Even the wall itself may be dispensed with.

I have had as good a crop of Mushrooms on a bed out-of-doors as I ever had in a house. The bed was made as above, only, instead of being a "lean-to," it was a "span," the dung being built up into a steep ridge-like shape, and well beaten, &c. A good, heavy covering is the principal thing; and if the dung be in a good, well-tempered condition in October, when the bed is made, it is not likely to lose heat until the Mushrooms are formed and a crop secured. A cellar is also not a bad place for a bed; and we all know that Mushrooms are now-and-then found in very singular places. I, myself, have seen some that were produced in a coal mine 400 feet deep. But, as winter is a time when most structures are in use, I would advise the amateur, who has no accommodation that way, to try the effects of a bed quite out-of-doors, as above. This he can do at little expense,

if he be living in a town where dung is plentiful. The result is likely to be encouraging, and very often the Mushrooms so produced are better in quality than others more assisted by artificial means. J. ROBSON.

CONSEQUENCES.

By the Authoress of "My Flowers."

If there should chance to be, among our readers, any young persons of my own sex, I now particularly address myself to them, and entreat them to give me their attention, while I speak a word of warning upon a subject very interesting to the sisterhood at all times—and which has, necessarily, a very powerful influence upon their worldly happiness—I mean the estate of matrimony. Men have abundance of room in which to disport themselves; they have professions and pursuits that occupy and amuse their minds, independent of all control—so that should their domestic relations be uncomfortable, they have something to fall back upon to fill up the dreary wild, and in the performance of which their energies are exercised, and their thoughts occupied, to the exclusion of other things. They are, in a great measure, independent of home-interests, which sweeten and refine their work in life, without forming its essence.

With woman it is altogether different. Home is her field of labour; domestic life her sole profession. How important, then, that she should enter upon it carefully! and yet, how seldom does she fit and prepare herself for her work; how seldom does she observe the rules and regulations drawn up for her; and how frequently she dashes into partnership, not only with a Firm already insolvent, but so madly, and so wickedly, that disasters must ensue, "as sparks fly upward."

The history of a lady, who lived to an advanced age, under circumstances of the kind I allude to, will be, I trust, a warning to giddy, or obstinate, or imprudent young women, who may possibly be thinking their parents cruel; themselves wiser than their elders; and everything that glitters—gold.

Julia Manners was the daughter of a younger son of a high county family, who, having nothing, became a man of business in the City, and made, by degrees, a large fortune. He never went away from his post, but remained busied in his daily routine, and his family remained there with him. His wife died while their three children were young—in fact, she went off in decline immediately after the birth of the youngest boy, leaving them as a legacy to a father, who, of course, knew nothing at all of nursery affairs, and left them almost entirely to the care of servants. Julia, older by some years than her two brothers, grew up into a lively, thoughtless girl, without the restraining hand and anxious care of a mother, so essential to a child's well-being. No eye could watch over her tastes and habits, or implant even worldly lessons of wisdom. Her father gave her a suitable education and accomplishments, and came home every day to a late dinner. With true masculine short-sightedness, he engaged a very handsome, young music-master to perfect Julia in that art, while he himself was immersed in City engagements, never dreaming of the consequences of so thoughtless an arrangement, until it was too late.

Mr. Grosvenor was a young man of very good family, but he had been cast off from his father's care at an early age, and compelled to support himself. It was a case of extreme hardship, and the young man was greatly to be pitied; but still he was, by distressing circumstances, a music-master, and of no further account in the eyes of man. Miss Manners it was known would be handsomely provided for, and Mr. Grosvenor was poor; they were, besides, young, and thrown together, and Julia, at least, attached herself to the first person who professed to love her. It was impossible to think for a moment of asking Mr. Manners' consent to such a match for his daughter—Julia well knew that would be a hopeless step—but she was very young, very thoughtless, and very ignorant of all that she ought to know. No one had been at hand to teach her lessons of wisdom from the mouth of the Lord; she was, in all moral and religious things, totally neglected; and if

excuses can be made for evil and disastrous conduct, perhaps Julia might shelter herself beneath them. But consequences are so firmly and surely lashed on to actions, that however men may palliate, they cannot separate them. The mouth of the Lord has spoken, and uttered His decrees upon the works of men; and turn and twist them whichever way we may, the "judgments of the Lord are true, and righteous altogether."

With the blindness of headstrong youth, the young people decided upon a clandestine marriage; and with the subtlety and deceitfulness of the unrenowned heart they accomplished it. Mr. Manners being absent all day, of course they were quite at liberty to do as they pleased; and Julia had only the difficulty of arranging with her little brother, who was left in her charge. On pretence of taking a walk, she went with the child, one morning, to the neighbourhood of the church where the marriage was to take place. She then bought some fruit at a shop, and giving it to her little brother, placed him in a safe nook, and bid him eat his fruit, and not stir from the spot till she returned. Then she joined Mr. Grosvenor, plighted her vows in the sight of God, and quietly returned to the little boy, with whom she went home. What her feelings could and must have been, when her unsuspecting father entered the house that evening, must be left to imagination alone. Surely, the vulture-gnawings of conscience, and the anguish of guilt, must have begun at that hour, when, perhaps, for the first time, she dared not meet her injured parent's eye! and I would earnestly press upon the young, the *speedy*, as well as the certain, remorse that follows guilt. The very moment evil is committed, the consequences begin—if not in circumstances, self-reproach, terror, or shame. Oh! that we considered this more deeply than we do: and that however we may escape for a time, or for ever, the knowledge of men, yet the grand offence is committed against Him who seeth the heart, and who says, in a voice of eternal thunder, "Vengeance is mine: I will repay."

Julia little thought of the Father in heaven; but fear of the father on earth was bad enough. It was quite painful enough to live in perpetual dread of discovery, which must soon be the end of such a step, although they never contemplated it when first the plot was laid. Her father was a stern man—when, and how would it be?

Mr. Manners met Mr. Grosvenor on the staircase, one evening, on his return from the City. It was not the hour for a music lesson, and enquiry led to detection. Julia was compelled to confess her sin, and receive the first burst of her father's offended and outraged feelings.

I am quite sure that, setting aside all consideration of our duty to God, no pleasure or desire of our hearts ever gives us one moment's real happiness when we have committed evil to obtain it. The horrors, the terrors, and the miseries attendant upon guilt, crush and overpower every enjoyment. Even folly repays us with bitterness, and we are sure to repent of it; but when guilt fastens upon us, the torture is keen, and deep, and lasting. But when we feel the *real* nature of our offence: "Against thee—thee only have I sinned, and done this evil in thy sight," the cup of agony is full, and brimming over.

Let my young readers picture to themselves, if they can, the feelings of Julia as she stood before her father, shrinking from his eye, and quailing beneath his indignation. I must reserve the remainder of her history for my next paper; but surely, even thus far, it reads us a deep and impressive lesson. "Children obey your parents in the Lord; for this is right."

(To be continued.)

NOTES FROM PARIS.

BESIDES the plants, fruits, and flowers, which naturally form the chief part of the Horticultural Exhibition here, there is a large miscellaneous collection, which occupies, what is called in the catalogue of the Society, the *Tente de l'Industrie*. A cursory enumeration of the articles will give an idea of this auxiliary department of the exhibition.

Several very complete cases of instruments, under the designation of horticultural cutlery (*coutellerie horticole*),

have been shown by M. Dittmar, of Wurtemberg; M. Arnheiter, M. Garde, and M. Groulon, of Paris. These are, however, not such instruments as are ever seen in the hands of workmen; especially those of M. Dittmar, who appears to have been at considerable pains to get together as costly and as varied an assortment as possible, chiefly suited for lady-amateurs. Several collections of agricultural and garden instruments of larger size have also been shown: the most noticeable of these belong to M. Quentin Durand, of Paris; and M. Sebire, of Charonne. But I have seen nothing in these collections deserving particular mention, either in point of originality, or adaptation for the end proposed; if I may except a machine for lifting and removing large plants, or trees, in tubs and boxes, and which, as near as my means of ascertaining will enable me at present to say, belongs to M. Sebire. A machine of this kind is particularly useful in most gardens of any pretensions, but especially here, where Orange-trees in boxes of four or five feet in diameter abound, and have to be frequently moved from one place to another. It is no slight affair getting one of these trees, with its ton of soil, safely into an ordinary cart, as may be seen at this moment in the Champs Elysées, and the Garden of the Tuilleries. The machine in question lifts the box only a little from the ground, and the operation is very simple. There are one or two implements for the purpose of detaching fruit from the tree at any point, and so that it may fall at once into a small open net, only an inch or so from the stalk, or branch, on which it is growing. This is a contrivance which, in different forms, has been several times introduced to notice during the last six or seven years. But though it is well adapted for the purpose, we doubt whether it can be employed to any great extent, or with despatch. It is, however, useful for gathering fine fruit, or fruit of any quality where there is plenty of time.

M. Michau, of Paris, has shown an invention of his under the name of *cache-pot*, that is, "pot-concealer." This is simply a painted zinc envelope, for the purpose of concealing pots in drawing-rooms, when desired.

Among the more noticeable articles are several ornamental designs of small, portable fountains, the size of an ordinary lamp, suitable for drawing-rooms, conservatories, and window-gardens. One merit of these fountains is that they are very cheap, and another is, that besides being easily adjusted, they are capable of being made highly ornamental, when studded with cut-flowers, as they are intended to be. The smaller sized ones may be had complete for ten or fifteen francs (8s. to 12s.). I enclose a sketch of one of the larger ones suitable for a drawing-room conservatory. This is in the collection of M. Plasse, of the Rue St. Honoré, 67. The basket and pedestal, which envelops the base of the fountain, are made of wood. The side of the basket is studded with small, leaf-like pieces of white wood, in the form of graceful fronds. Several irregular branches underneath assist to give strength and symmetry to the general form. In this example, the larger flowers—either cut and placed in bottles, or growing in pots—are confined to the two sides at the right and left; a few sprigs are put in at the further side, while the side immediately in front is left open, the bottom being simply covered over with a layer of fresh green moss. Sometimes, a patch of young grass, growing in a shallow pan, is also placed at this side. The more usual way of setting off these fountains, especially the small ones, which are placed on a table, is this:—A line, or border of grass, kept short, is carried all round at the circumference; then come several circles of cut-flowers, such as Pansies, Pinks, Asters, or Dahlias, which have a flat surface. Near the centre are a few fronds of *Adiantum capillus veneris*, or so many raised flowers of different sorts. Nothing can well be more beautiful or more suitable for the sitting-room than one of these portable fountains when it is neatly trimmed with flowers. In another collection of a similar kind there is a tasteful contrivance which combines a flower-basket, a fountain, an aviary, and a globe for fish. This is intended to be hung up.

Of ornamental flower-baskets, in wire-work and willow, there is an endless variety; these are chiefly suitable for amateurs. Another class in this division comprises elegant patterns in earthenware, both for standing and hanging from the ceiling. A great many elegant cages for conservatories and saloons are also exhibited in this

department. Several coloured plans of gardens have been contributed by M. Bonnamy, of Toulouse; M. Busiune, M.



Lebreton, and M. Legendre, of Paris. Rustic seats, and garden furniture, in general, have been supplied in great variety by M. Borel, M. Charrault, and other makers of Paris. M. Buschmann, Rue de Landry, and M. Derouin, have shown a varied collection of garden labels. Several collections of plain and ornamental flower-pots and vases have been contributed by M. Follet, M. Lecnyer, M. Gossin, and M. Legendre, all of Paris. Everything required in the construction of greenhouses and conservatories, including different modes of heating and ventilating, may be seen here. There is also an extensive assortment of pumps and watering machines, on every known principle, both for the garden and field. M. Faucher has what he calls a new form of garden-frame; but of which the advantages are not very apparent. In addition to these, there is, in the hardware division, a great number of miscellaneous articles of no great interest, and of which an enumeration would be too tedious.

Of vegetable products, the principal collection belongs to the government, and has been sent from the imperial establishment in Algeria. Here are to be seen samples of Potatoes, Onions, Beetroot, Tomatoes, Rice, Gourds, Nuts, Opuntias in fruit, and with the cochineal insect; also, aubergines, cocoons of *Bombyx cynthia*, and similar articles. MM. Yauvie and Yelli, of Paris, have an interesting collection of plants, the leaves or bark of which are used for the manufacture of cordage and paper. In most cases, portions of the plants have been prepared so as to show the blanched tissues ready to be turned into cordage. Of the plants thus exhibited, the Aloes occupy a prominent place. M. Vilmorin, of Paris, as I have already had occasion to notice, has con-

tributed largely to the Exhibition in its several departments, and in that under notice he has a varied assortment of Grasses, and other plants used as fodder; also, Potatoes, French Beans, and similar esculents.

It would be very unfair to close this notice without mentioning that several publishers of books relating to horticulture and agriculture are respectably represented in the industrial tent. It may be sufficient just to give the names of M. Buchar-Huzard, M. Dusacq, M. Goin, M. Gerard, and M. Roret, all leading firms of Paris. But it must not be supposed that the books are only to be looked at; they may also be purchased; and a great deal of trouble is thus spared to persons who might like to learn more fully the rearing, culture, or history, of whatever may interest them in the exhibition, of which, indeed, these book-stalls form the best features. For what can be more fitting than that theory and general literary knowledge should go hand in hand with the practical operations of every art and science? I would even go further, and say that every exhibitor should be required to furnish the most useful information respecting the articles which he exhibits. As it is, we must be thankful for the innovation just effected by the Committee of the Paris Society, and it is to be hoped that such an excellent example will be generally followed.

Of the more recently published works, one or two may be named, as *Manuel Général des Plantes*, by M. Jacques, late head-gardener at the Château de Neuilly. Three volumes of this work are out, and together cost 30 francs (24s.). *Les Roses*; or, *The History and Culture of Roses*; in three 4to volumes, containing each 410 pages, 169 coloured plates, and an equal number of wood engravings. The three volumes are 400 francs (£12). *Pescatorea*; ou, *Iconographica des Orchideæ*. The figures and descriptions chiefly from plants in the collection of M. Pescatore, at the Château de la Celle, St. Cloud, conducted by Linden, Luddemann, Planchon, and Reichenbach. In numbers, containing four coloured plates, folio size. Twelve numbers are 80 francs (about 3 guineas). To these may be added a small work by Decaisne, on the History and Culture of the *Ignoma*, or *Dioscorea battatas*.

The exhibition of fruit and vegetables continues to be well sustained; but there is nothing requiring special notice.

Among flowers, a new variety of *Veronica speciosa*, or *Lindleyana*, claims a passing notice. It is called *Veronica Meldensis*. In general, the whole plant is smaller, and the flowers are more of a rose-colour than those of the others named.

By-the-by, in noticing the construction of French bouquets, last January, I stated that flower-heads were often tied to what were called "Spanish rushes." I now find these "rushes" in one of the tents of the Exhibition, under the name of *Lygnum spartum*, one of the grasses of warm countries. The natives of Algeria are said to employ it extensively in making mats of different descriptions. Perhaps some of the other grasses, as well as the *Lygnum*, could be used for bouquets in the way I have described at page 337 of this year's volume.* It is mentioned in Jamieson's *Philosophical Journal*, quoted in the *Vegetable Kingdom*, page 111.

At present, the operation of removing the decayed branches and trees on the Boulevards is being performed. It is stated that about 5000 trees are required every year to fill up vacancies on the outer and inner Boulevards, including the Champs Elysées, and the other public promenades.

A new variety of Potato has lately been introduced to notice here, and recommended for its good qualities. It was raised by M. Chardon, of Montmureil, from seed imported from Saxony in 1847, and after being grown on a large scale, in different soils and localities, it has been found perfectly sound. It is stated to be very prolific, of a good size, but only fit for lifting about the end of October.

The Parisians are far behind in respect to horticultural and botanical periodicals; the only work of any note being the *Revue Horticole*, published fortnightly, and though respectably conducted, is too narrow in its scope. But the

* The stem of Crested Dog's-tail Grass (*Cynosurus cristatus*), dried as for making artificial Leghorn Bonnets, answers for the purpose.—ED. C. G.

French, generally, are not much given to reading, and those interested in gardening matters trust more to common routine than literary discussion. Now and then, however, articles about flowers and plants appear in the regular journals; but these are seldom remarkable for their practical value. I cannot help thinking that the mode of publishing here operates as a barrier to the circulation of such works. No single copies are sold, except to subscribers, and only at double price. Every subscription must date from the same day, and be for the whole year. This plan also applies to agricultural periodicals, of which the *Journal Pratique* takes the lead. In this way the publishers consult their own convenience, and not that of the public; but they overlook their real interest.

Let the thistle keep up its head! If you have made out that Sir Joseph Paxton is not a Scotchman, it may be some comfort for Scotchmen, and Scotch gardeners in particular, to learn that the patron saint of gardeners, in France, was not only "fræ yont the Tweed," but also a real Scotch Prince, being the eldest son of a King who is stated to have reigned in Caledonia about the middle of the sixth century, and who was contemporary with Clotaire the Second, King of France. A biography of this personage, who is duly entered in the French Calendar as *Saint Fiacre*, has just been published in the *Almanach du Jardinier*, from which I shall extract a few particulars.

It appears that St. Fiacre was brought up under the care of Conan, Bishop of Sodor, to whom his father, the King, had intrusted his education. When scarcely twenty years old he became disgusted with the vanities of the world, and either under the impression that a prophet has no honour in his own country, or, like many more, having a moody *penchant* for roaming, he ignored his nobility and his fortune, bade adieu to the bleak mountains of his native land, and, in the garb of a devout and simple pilgrim, bent his steps to the capital of France. He ultimately established himself as a hermit in the dark forest of Breuil, with the authority and protection of St. Faron, who, besides having a great liking for the islanders of the west, was struck with the royal pilgrim's sentiments of humble devotion and contrition. In his solitude, St. Fiacre was not idle, but actively occupied himself in ministering to the necessities of the poor and sick. He laid out a garden, and cultivated vegetables and medicinal plants, which he distributed gratis to all who came to ask his blessing or his charity. Even miracles are said to have been worked by him; but this Divine power was looked upon by impious persons as witchcraft, and at one time he had nearly lost the friendship and protection of St. Faron, through the false and malicious accusations of a woman, who attributed his miracles to the agency of Satan. But this wicked woman was soon found out, and the good Fiacre lived down the slanders which had been raised against him. From this time he enjoyed tranquillity, working in his garden, during the day, for the temporal and spiritual wants of the poor, and devoting his evenings to calm meditation and prayer. In the course of time, he built a private chapel and a hospital for the sick and infirm, whom he ministered to and relieved with his own hands. But St. Fiacre was austere and ascetic, never allowing women to enter his hermitage; even Queens and Princesses were excluded—a circumstance which exposed him to persecution on the part of at least one royal lady.

It is not stated to what age the saint lived; but we learn that he died on the 30th of August, in the year 670; his chapel or *oratoire* serving him for a tomb, to which the people, out of veneration for the illustrious hermit, were accustomed to repair during several centuries after. In 1234, Bishop Philippe had the body removed to the church of Meaux. In 1627, John de Bellun opened the tomb, and took out a portion of the bones, which were sent to the Grand Duke of Tuscany, by whom they were richly encased, and deposited in a chapel built near Florence. So late as the last century, relics of St. Fiacre were to be seen in several churches in Paris, and other parts of France. Kings and Emperors, in different ages, have venerated the memory of the good Scot, and have made pilgrimages to his tomb; but 600 years elapsed before the Church ranked him among the number of those who have honoured her by their piety and their virtues.

On the 30th of August, which is the *fête* day of the véné-

rated patron of gardeners in France, the churches in the country are decorated with flowers and garlands of foliage; sacred music resounds through the lofty aisles, and clouds of incense arise from the foot of the altar; then, in the imposing solemnity of the scene, the priest asks a blessing for the humble labourers of the garden and field, who, kneeling before the throne of the Most High, acknowledge that "Paul may plant, and Apollos may water," but that the increase is from above.

The weather here for some days has been damp and dismal enough, and the want of crossing-sweepers more than usually felt. There are now some signs of it clearing up again; but it has been real London weather lately—not that densely foggy weather, however, which the Parisians suppose to prevail every day round St. Paul's.

Among the supplies of fruit in the markets, at present, a great many large Quinces may be seen; also, Medlars and Crabs. The commonest autumn Fig here is what is called *Figue de Marseilles*, a round onion-shaped variety, of first-rate quality, fully an inch in diameter, and bloomed like an Orleans Plum. It is very different from any of the summer Figs, both in form and colour. A few Pine-apples may be seen in the shops of some of the principal dealers; but, on the whole, they are very scarce. There is a large variety of Citron, called in French *Poncire*, somewhat common just now; but I have not had an opportunity of making out its real name. It is chiefly used as a spice in cookery. There have, also, been several arrivals of Lemons, Oranges, and Pomegranates, from Spain. Melons, Gourds, and Pumpkins, are in great abundance, as there has been a heavy crop this year. They are used extensively in soup by the people; and, indeed, soup made in this way is invaluable for purifying the blood and rectifying the whole system, without violent action. For persons subject to headaches and nervous disorders, Gizaumont soup is not only nourishing food, but also one of the best and cheapest medicines to be had; and I am inclined to believe that this fact explains, in some measure, why the hospital surgeons here have had so little to do this summer and autumn. I myself know of several cases which prove the correctness of this view. The common Pumpkin is sold by every greengrocer; and a large slice, enough to make soup for several persons, may be had for two sous (1d.); but one of the best sorts is the *Gizaumont*, or Turban Gourde, and it is selling at four and five sous, ten or twelve inches in diameter.—P. F. KEIR.

FUTURE MANAGEMENT OF THE LONDON HORTICULTURAL SOCIETY.

"SUBURBAN" offers the following suggestions, in addition to those given in number 369 of your Journal, concerning the future management of the Horticultural Society of London.

Six of the General Meetings were held at the Society's House, in Regent Street, London: dating from Nov. 5th 1854 to May 8th, 1855. One Exhibition was held at Gore House, Kensington, on May 6th, and two at Chiswick, on June 20th and July, 1855.

It was certainly a mistaken notion of the Committee to reduce the Chiswick Exhibitions.

Without further delay, it has become absolutely necessary that they should devote their attention to the reclaiming of the Society. Every kind of attraction that can be devised must be introduced, to induce the public to become subscribers at the moderate rate of subscription mentioned by you.

Many living in the vicinity of these gardens, would, no doubt, be glad to subscribe a guinea, as an annual subscription; also those residing at Kensington, Bayswater, and the West End of London, provided that old formality of applying to the Fellows for tickets of admission, and the bother of signing the name and address, at the entrance lodge, were entirely abolished; and tickets, signed by the Secretary of the Society, substituted for them, delivered by the visitor to the porter in attendance.

The lodge referred to, placed, as it is, in an obscure position, will serve for a side entrance. But a new lodge, for the admission of the public, must be erected in the main

road overlooking Turnham Green. Taking, for example, the handsomely emblazoned gates and ornamental lodge at the entrance to the Duke of Devonshire's Villa. These are in sight of the mean-looking lodge and gates attached to the gardens.

The title of the Society, with the addition of the name of "Chiswick," conspicuously wrought in the pattern of the gates, should be done.

As to the number of Exhibitions to be held at Chiswick, double the number of those at present held there would not be too much, and less in London; the last at the end of September, if not later.

The Committee can take a few instructive lessons from the Paris Horticultural Society.

The flower-gardens must, of a necessity, be thoroughly remodelled to suit the taste of the public. Mr. D. Beaton would, no doubt, soon point out, for the benefit of the Society, what kind of attractions it would be desirable to make. He has always taken a great interest in it. He would not, possibly, object to see the public occasionally admitted to the grounds, free, to admire his handiwork, and give young gardeners an opportunity of gaining instruction.

A great inducement might be held out, with the view of obtaining subscribers to the Society, in appropriating a day or so to them and their friends, by hiring a military band to play in the grounds, according to the plan adopted at the Kensington Gardens. Not omitting to have a refreshment-room erected, which might be supplied with fruits of the Pomological gardens, together with the beverages and biscuits supplied by Mr. Gunter, at the one in the gardens alluded to; also bouquets, after French and English styles, of picked choice flowers from the conservatories and gardens, to be sold at a moderate price.

As the House of the Society in London cannot accommodate the anticipated accession of new subscribers, some rooms ought to be engaged *pro tem.* for the use of the General Meetings in London.

The above suggestions are offered with the desire of inducing other subscribers to your Journal to give their free opinions on this important subject.—Oct. 30, 1855.

MILDEW ON VINES.

SEEING an article in THE COTTAGE GARDENER for October the 16th, respecting this disease, I must say I cannot agree with the writer as regards the sulphur on his flues. He says, omit the washing of the flues until the crop of fruit is cut; but I think that would be of little use to secure the fruit if attacked when young. As a preventive, I have used myself (and some of my neighbours) a mixture of soft-soap, sulphur, and soot, and applied it to the pipes and flues every fortnight from the commencement of forcing, and never have I seen the least trace of mildew; but I have not got my house up to 100°, I only keep it the regular heat required for the health of the Vines. When I prune my Vines, I remove all loose, old bark, and paint them with the same mixture as the pipes. As regards dry sulphur, many say, if you have mildew on your Vines and Grapes, rub them with finger and thumb with the flour of sulphur; I fear there is very few that would like to go into a Vinery well-stocked with fruit to perform that operation. Further, is there any one of our Grape-growers that would like to see their fruit shining like Morella Cherries? What is a Grape thought of without its bloom? It is quite clear that all bloom must be gone if the Grapes are coloured when attacked. I think they are not fit to go to a gentleman's table. I am sorry to say I think Grape-growing is not so much looked after in many places as it deserves to be. Good fruit is little known to many. The greatest mistake is too many berries, causing them to be so small; some that are thought good are very moderate, when compared with some grown well. Pruning has a great deal to do with it. Many gardeners do not like the close pruning, which I think far superior to any other way.—S. T., Norfolk.

CANARY BREEDING.

(Continued from page 43.)

HAVING, in my former paper, given some account of the breeding and rearing of Canaries in a room, or aviary, it is now my intention to write a few remarks on their management in breeding-cages.

The breeding-cage should be roomy. Indeed, its shape or make is of little consequence, provided it is sufficiently large; that there is a somewhat sheltered nook or corner for the nest; and that it is so placed, or can be moved, so as to enjoy the influence of the sun's rays occasionally, which conduces much to the health and vivacity of the inmates.

The commonest breeding-cages are those sold in London for half-a-crown each, being made of thin deal, boarded at top, bottom, back, and sides, the front only being of wire, and furnished inside with a centre perch, and one along the front, for the birds to feed on; two nest-boxes, hung, one in each of the back corners, and the bottom to draw out, in order to clean the cage. In addition to the cage, two glasses, one for seed, the other for water, which will cost threepence each, and a twopenny tin pan for the soft food, completes the furnishing of their abode, at the cost of three shillings and threepence. A common cock Canary may be bought in London for two-and-sixpence or three shillings, in the autumn; and a hen for one shilling or eighteenpence; so that if one has a mind to be economical, their first start need not cost very much; but if a lady or gentleman intends to become a fancier, I would advise her or him to buy more substantial cages, and breed birds of some fancy variety, in the selection of which they can indulge their tastes to any extent they think agreeable.

I know not of any form or shape of cage that is better adapted to successful rearing of birds than another, always provided it is sufficiently roomy. The common cages, before mentioned, are about twenty inches long, ten wide, and twelve high, and I would not advise any smaller space for a pair of birds, but the larger the better, provided they do not become cumbersome; if boarded round, they should be made of good yellow deal, strong of turpentine, and well-painted externally; or, if required to be ornamental, of mahogany or fancy wire-work, though wire filligree is rarely durable. Care should be taken that the wood-work is well and closely put together; and if you intend having the cages made to order, it would be an excellent plan to smear all the edges of the wood where it is to meet with a mixture of turpentine and some thick oil, or fat, so as to prevent any insects from harbouring in the cracks and crevices of the cages, which they otherwise will do, much to the annoyance of the old, and frequently to the destruction of the young, birds. Such cages as are not painted may be occasionally rubbed over with oil, so as to fill all cracks, and then rubbed dry, which will not only improve their appearance, but destroy much of the vermin.

The nest-boxes are, I think, best made rather deep, as the hen sits then more secluded. The size I recommend is about three-and-a-half inches square, and two-and-a-half to three inches deep, the bottom to be made of wire, so that any dust or dirt that may work through the nest may fall out, and not accumulate on the floor of the nest to form a harbour for vermin. The nest-box, too, should be well-painted, so as to soak the wood well with oil and turpentine. If the breeding-cage is all made of open-work, it will be requisite to hang it up out of draughts; and, in that case, it will be advisable for the nest-boxes to have little roofs of their own. If a large cage is used, two hens may be put up to one cock; but, in that case, it is advisable to allow the ladies to become well-acquainted before the gentleman is introduced to them.

A bath is indispensable; it is a frame of mahogany, holding a small, white pan, and covered over with wires (and may be purchased at most bird-cage shops in London); the pan being filled with water, and the bath hooked on in front of the open door-way, the birds take great delight in bathing, which conduces much to their health and the beauty of their plumage. The floor of the cage should be strewn with sand; a small lump of salt-mortar be placed in it for them to peck; and, in other respects, treated as described in my former paper. The young birds should be removed as soon

as they feed themselves, and allowed plenty of soft food till their bills are hard enough to crack the seeds easily.

It is a common, but mistaken, practice, to hang the breeding-cage in the warmest and quietest corner, which is frequently rather shady; this, however, will cause the birds to get fat, stop breeding, and be continually moulting instead. Lastly, if you wish strong, hearty, young birds, see that the old ones are not closely related.—B. P. BRENT.

(To be continued.)

QUERIES AND ANSWERS.

GARDENING.

SALVIA SPLENDENS FLOWERS FAILING.

"I have some large plants of *Salvia splendens*, which appear in perfect health, as regards the foliage, a beautiful green and large leaf, and not affected with the Red Spider (though I know this plant is subject to it). I was in hopes to have had a fine show of scarlet blooms next month; indeed now, with the Chrysanthemums; but although the blossoms are formed, they go off as if there was not sufficient strength to open the flowers, and they have plenty of manure-water too. Can you explain if this is common; or may I now expect flowers from the second shoots, as they are all stopped, and plenty of blooming points yet to open, if not too late? I have put them lately in the stove heat of 60°. Is this right?—J. G."

[Did you pot your plants late? because, if so, the first flowers are apt to fall. A temperature of from 45° to 50° will bloom them well; but we have had them very grand in a stove with heat approaching 60°. If the pots are not well filled with roots, discontinue the manure-water until they are. Did you give air enough in the late damp weather? We have seldom known them fail at this season, even in a cool greenhouse, but the plants would not continue so long as if they were warmer. We think you will have secondary flowers, but they are seldom so fine as the first.]

LIST OF GREENHOUSE AND STOVE PLANTS, AND FORCED PLANTS, TO BLOOM EACH MONTH.

AN OLD CORRESPONDENT suggests this important subject, and we will think over your letter, and try and meet your case. The difficulties connected with it, however, are not small. We once attempted something of the same sort, and also with fruits; but we received so many angry complaints that we then gave it up. A few words of your letter supplies one great reason why we failed to please. Your list is to be one not "*applicable to first-rate establishments.*" Now, this is just the hitch of the whole affair. We gave some lists of what *could* be got. We could not by possibility say how much of these could be realised by every different subscriber. Hence, one man complained that he could not get a tithe of what we talked about; though, perhaps, all things considered, that tithe was very honourable to him. Another good gardener wrote to say that his master got dissatisfied, because he did not have all these fine things, though he allowed neither means nor conveniences for them. We know full well that there are many large-hearted employers of gardeners, and who need almost everything on gardening that comes out; but we also know that there are others, who would not be content with the produce of a nobleman's garden, though they spent less altogether than he might on his Melon ground. You will say, how very inconsistent! Yes; but this inconsistency is a very common affair. Some philosophers affirm that every man is insane at times. We know, full well, that we and others are frequently very unreasonable, and that is not far off from a spice of madness. When we give such lists, if people would just think how far the getting of such things was suitable for their circumstances, all would be well. But, often, a sort of grasping at all or nothing is produced, and ever leads to disappointment. This attempting so much is one cause of the ruin of horticultural and floral Societies in the country. Many could grow some things in a superior

order; but, no; they must show and compete for everything in the schedule; and many things appear, in consequence, no better than is to be seen in cottager's windows, and people, therefore, stay at home, and keep their shillings and half-crowns in their pockets. We will examine your list; but if you aim at greatness in gardening, think more of quality than quantity. You will not have so many things in bloom, but when you have a plant in bloom it will be a picture. Every man, however, has a perfect right to indulge his own particular taste, and if he prefers a house filled with small-flowering plants, we see no reason why he should not be gratified, and, at least, he will have the pleasure of seeing more variety. Every man, however, who wishes to show individual plants in fine, first-rate condition, must limit the numbers of his plants, even though he should have little bloom at times by doing so.

APPROACHES.

"In visiting many places, I have often been struck with surprise at the meagre and narrow appearance of the principal approaches through the park to the mansion; many, not more than nine or ten feet wide, little more than merely let a carriage pass along. The expense of keeping may be one reason; but, I believe, the principal objection is, that when a road is seen in the landscape, it mars the beauty of the effect; and the wider the road, of course, the greater the objection. Now, I hold that they never should be narrower than would admit of two carriages passing each other conveniently, especially in large places of any pretensions. In driving gently along, there is association of ideas of all you see around you, and it at once takes from the grandeur of a place, and causes disappointment of the whole, by being obliged to pass along a narrow strip of road, and having to take the grass, should any other vehicle chance to meet you. And so far from roads seen in the landscape being an objection, as many have it, they can be introduced sometimes with admirable effect. As, for instance, in leading to a bridge, or a lodge, or any other building, it is quite indispensable; and, if the park and approaches are properly laid out, in most cases, are rarely or never seen to a disadvantage; more especially, if we take into consideration the utility and ends for which they are made, and which should never be lost sight of. The extent of the place, and the surrounding scenery, should always be taken into consideration; for, on entering a domain, they form the first grand feature of a place. One day, lately, on coming away from a noble place of a noble lord, through a beautiful park, with fine woodland scenery in the distance, the approach being so narrow, it was sometime before I got reconciled to the fact that I really was on *the* approach. And I recollect, some few years ago, a friend of mine, a landscape gardener, complaining, that after he had laid out a place for a gentleman, and had given satisfaction to all concerned, the gentleman, in the absence of my friend, and without consulting him, had his principal approach to the house altered, and so far from being the fine, easy sweep laid down in the plan, it was converted into something like a railway, with cuts and embankments, which quite altered the appearance of the whole place; and, of course, it told considerably against my friend, as few or any visitor would know but what it was his original plan.—E."

[The foregoing remarks have been sent for my opinion by a very able gardener. I must own, that when approaches are measured by miles, I have an objection to their being wide and conspicuous, though the width may be greater at the entrance, and near the house. A seen utility does away with the objection of mere obtrusiveness; but mere obtrusiveness of itself, either in roads or walks, through green parks and green lawns, though utility apologises sufficiently for their presence, does not on that account constitute them beauties in the landscape. Convenience, fitness, economy, &c., must enter into considerations as to the width of an approach in each place, and be regulated by circumstances and scenery. I shall be glad if you give the subject a corner to be ventilated on in THE COTTAGE GARDENER.—R. FISH.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

BIRMINGHAM. 11th to 14th of December. *See.* J. Morgan, jun., Esq. Entries close November 10th.

DURHAM AND NORTH YORKSHIRE, at Darlington, 6th and 7th of December. *See.* J. Hodgson, Esq. Entries close November 19th.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. *See* R. Hawksley, jun., Esq., Southwell. Entries close November 20th.

SOUTH DURHAM AND NORTH RIDING OF YORKSHIRE. At Darlington, December 6th and 7th. *See.* Jno. Hodgson.

TAUNTON AND SOMERSET. Nov. 23rd and 24th. *See.* Wm. Buncombe, Esq., Taunton. Entries close November 3rd.

VALE OF AYLESBURY. January 2nd and 3rd. *Sees.* J. D. Muddiman, and Jas. Allen. Entries close December 20th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

THE EAST LANCASHIRE POULTRY SHOW.

(From a Correspondent.)

THIS was held in the Cloth Hall, at Colne, on October the 31st, and the following day, and though the room would have easily contained the previous year's collection, the entries (315 pens) this year so far exceeded the expectation of the Committee, that they had to crowd the birds somewhat inconveniently; and, perhaps, they would have added more to the comfort, most certainly it would to the quiet, of the birds, if the space occupied by the noisy band had been devoted to the birds; the band having gained a prize at a musical contest lately, apparently considered themselves the most prominent part of the show, and effectually prevented all crowing being heard.

Music is a very nice thing in its proper place, but we must protest against its being considered an acquisition to a poultry show, especially when the room is so small as the Cloth Hall at Colne. In other respects, the arrangements made by the Committee, under the guidance of the Messrs. Booth, gave general satisfaction, and augur well for the prosperity of the East Lancashire shows.

The *Game* fowl were decidedly the cream of the exhibition, and the competition was so severe, that the whole of the pens in this class were decorated with "commended" cards.

The *Hamburghs* mustered strong in all their varieties, and fully maintained the character of their own neighbourhood.

The *Dorkings*, with the exception of two or three pens of chicken, were poor.

The *Cochin* first prizes, all colours contesting in the same class, were carried off by Partridge birds, both in the old and chicken classes. The Buff Cochins here, as elsewhere, showed unmistakable signs of retrograding, even in stocks hitherto considered first-rate, whilst the Partridge variety is as decidedly improving, although, *en passant*, the judges can hardly have noticed the throistle-breasted cocks in the chicken prize pen, and one adjoining it which they commended.

The *Spanish* were, on the whole, nothing extraordinary.

The *Ducks* would, we fancy, have been more satisfactory if the varieties had been separated; and we fancy that the defeated competitors in *Geese* would have been better satisfied if the winning pen had not contained three ganders.

We are glad to find that the receipts were so satisfactory as to give assurance of another exhibition next year.

The judges were Mr. Stead, of Leeds, and Mr. Roscoe, of Knowsley.

Class 1.—SPANISH COCK AND TWO HENS.—2. First, James Dixon, Bradford. 9. Second, H. Richardson, jun., Sowerby Bridge.

Class 2.—SPANISH COCKEREL AND TWO PULLETS.—11. First, George Stowe, Colne. 19. Second, Matthew Ridgway, Dewsbury. Commended.—12. James Dixon, Bradford. 13. James Howard, Tarlton, near Chorley.

Class 3.—COCHIN-CHINA.—21. First, W. Wanklyn, jun., Green Bank, Bury. 20. Second, T. Stretch, Marsh Lane, Bootle, Liverpool.

Class 4.—COCHIN-CHINA COCKEREL AND TWO PULLETS.—43. First, T. Pearson, Holbeck Mills, Leeds. 29. Second, T. Stretch, Marsh Lane, Bootle, Liverpool. Commended.—28. W. Wardle, Ramshotton, near Manchester. 41. William Stott, Sowerby Bridge.

Class 5.—DORKING.—45. First, The Rev. Geo. Hustler, Appleton, Tadcaster. 46. Second, Isaac Baldwin, Marsden.

Class 6.—DORKING COCKEREL AND TWO PULLETS.—48. First, Major Thursby, Ormerod House. (Brown.) 53. Second, D. Harrison, Singleton Park, Kendal. Highly Commended.—57. J. Robinson, Vale House, near Garstang. (The whole class good.)

Class 7.—GOLDEN PHEASANT, OR SPANGLED HAMBURGH.—67. First, John Robinson, Vale House, near Garstang. 65. Second, James Dixon, Bradford.

Class 8.—GOLDEN PHEASANT, OR SPANGLED HAMBURGH COCKEREL AND TWO PULLETS.—77. First, John Ellis, Earby. 69. Second, Henry Butterfield, Barrowford.

Class 9.—GOLDEN-PENCILLED HAMBURGH.—82. First, James Dixon, Bradford. 85. Second, Edward Stansfield, Daisy Hill, Dewsbury.

Class 10.—GOLDEN-PENCILLED HAMBURGH COCKEREL AND TWO PULLETS.—96. First, James Dixon, Bradford. 107. Second, Richard Sagar, Heyroyd, Colne. Commended.—99. Thomas Hargreaves, Waterside, Colne. 105. J. Fletcher, Stone Clough, near Manchester.

Class 11.—SILVER PHEASANT, OR SPANGLED HAMBURGH.—112. First, Benjamin Baxter, Edge End, Colne. 111. Second, J. Hodgson, Grange, Hebden Bridge. Commended.—115. John Sudall, Padiham.

Class 12.—SILVER PHEASANT, OR SPANGLED HAMBURGH COCKEREL AND TWO PULLETS.—129. First, Richard Thornton, Sheep-street, Skipton. 133. Second, A. Smith, Woodside, Kildwick. Commended.—119. W. Nightingale, Skibeden, near Skipton. 137. James Berry, Sutton, near Keighley.

Class 13.—SILVER-PENCILLED HAMBURGH, OR CHITTEPRAT.—145. First, James Dixon, Bradford. 146. Second, James Dixon, Bradford.

Class 14.—SILVER-PENCILLED HAMBURGH, OR CHITTEPRAT COCKEREL AND TWO PULLETS.—151. First, James Dixon, Bradford. 161. Second, J. Hartley, Marsden Cross, Marsden. Commended.—148. Thomas and Edward Booth, Marsden. 152. James Dixon, Bradford.

Class 15.—POLAND COCK AND TWO HENS.—169. First, James Dixon, Bradford. 170. Second, William Cannan, Eccles Hill, Bradford.

Class 16.—POLAND COCKEREL AND TWO PULLETS.—173. First, James Dixon, Bradford. 175. Second, Henry Sharp, 47, Mill Lane, Bradford.

Class 17.—GAME.—182. First, Daniel Harrison, Singleton Park, Kendal. 191. Second, Mrs. David Henderson, Shuttleworth, near Bury. Commended.—189. George Thornton, Waterside, Colne.

Class 18.—GAME COCKEREL AND TWO PULLETS.—198. First, Hartley Sturtard, Marsden. 204. Second, William Rushton, Marsden. Highly Commended.—197. Joseph Hodgson, Grange, Hebden Bridge. 200. John Higson, Windy-Bank, Colne. 205. Robinson Lister, Sutton. 210. Samuel Armitage, Thornton Road, Bradford. (The whole class commended.)

Class 19.—BANTAMS.—235. First, the Rev. Joseph Smith, Brindle. 228. Second, James Dixon, Bradford.

Class 20.—BANTAM COCKEREL AND TWO PULLETS.—242. First, S. Armitage, Thornton Road, Bradford. 246. Second, T. Pearson, Holbeck Mills, Leeds.

Class 21.—ANY OTHER DISTINCT VARIETY.—250. First, James Dixon, Bradford. (Brahma Pootra.) 260. Second, J. Reeday, Noll Gait, Keighley (Black Pheasant.) Commended.—247. J. Town, Colne Lane, Colne. (Black Pheasant.) 252. Richard Teeby, Preston. (Brahma Pootra.) 257. R. Payne, Marsden. (Brahma Pootra.) 261. W. Dawson, Mopton, Mirfield. (Serai Taook, or Sultan's Fowls.)

Class 22.—TURKEYS ABOVE ONE YEAR OLD.—263. First, J. Hodgson, Grange, Hebden Bridge. 265. Second, Wellington Moorehouse, Read. Commended.—264. William Wilding, Montford.

Class 23.—TURKEYS, HATCHED IN 1855.—266. First, Henry Thompson, Royal Oak Inn, Keighley. 271. Second, William Chaffer, St. James's Street, Burnley.

Class 24.—DUCKS ABOVE ONE YEAR OLD.—285. First, Brooke Wilkinson, Halifax. (Aylesbury.) 273. Second, Joseph Hodgson, Grange, Hebden Bridge. (Aylesbury.) Commended.—276. W. Wanklyn, jun., Green Bank, Bury. 279. James Townsend, Laneslaw Bridge.

Class 25.—DUCKS, HATCHED IN 1855.—287. First, F. H. Butterfield, Myrtle Place, Bingley. (Aylesbury.) 304. Second, Mrs. D. Henderson, Shuttleworth. (Rouen.) The whole class commended.

Class 26.—GEESE.—310. First, Mrs. D. Henderson, Shuttleworth. (Toulouse.) 312. Second, Joseph Hartley, Baunier, Colne.

BIRMINGHAM POULTRY SHOW.

ALTHOUGH last year everything appeared done which could minister either to the success of the show, the comfort of the visitors, or the well-doing of the birds, yet we see that the committee are on the alert, and no pains are spared to improve in every way.

In connection with the Exhibition of Poultry, Mr. E. Hewitt has once more courteously undertaken to superintend the feeding and general management of the fowls during the time they are in the Hall, and to take care that any diseased birds are removed. It may be necessary, in order to prevent an erroneous impression on the part of our

readers at a distance, to mention that the valuable services rendered by Mr. Hewitt, who is a member of the Council and the Poultry Committee, are of an entirely honorary character. The Railway Committee are now engaged in making arrangements with the managers of the principal lines, and with the prospect, we believe, of obtaining increasing facilities. It may, indeed, be reasonably expected that the Railway Companies will co-operate as far as possible with the committee in the efforts to increase the number of visitors. The holding of an annual exhibition of great interest to a vast number of persons, in the centre of England, affords one of the most proper and legitimate occasions for granting special accommodation.—(*Midland Counties Herald*.)

Whether we view the Birmingham Show as the parent of all others, or as a monument of the enterprise of that town, it is alike worthy of support from all who take an interest in agricultural pursuits. Those who have not yet seen Bingley Hall, will be surprised at the magnitude of the place built for the exhibition of cattle and poultry during four days of the year; and those to whom it is familiar, will, we have reason to think, be surprised at the immense improvement in all breeds of poultry.

Judging from many recent shows, we cannot help observing that a great alteration has taken place. It is now rare to see bad birds, and good ones are common.

While all descriptions have increased in size and weight, they have decreased in value. This fact may afford food for every class, even the most erudite and scientific, and they cannot do better than visit the noble show we are led to expect at Bingley Hall next month.

The annual dinner is fixed for Tuesday (the opening day), under the Presidency of the Earl of Dartmouth; and the annual meeting of members for the following Thursday.

MANAGEMENT OF BROODY HENS.

A CORRESPONDENT, in your number for October 2, has made some objections to the plan I advocated for preventing broody hens from sitting when not required, and recommends, instead, removing a broody hen to another yard amongst other poultry. With Cochins, the plan, as far as my experience goes, will not answer, for if there are any nests in the new yard the hens will take possession of them. The plan is also inefficient, from the fact that not one poultry-keeper out of fifty has another yard to which he can send his fowls. The reasoning which your correspondent employed to condemn my plan (which I know from long experience is successful) was most erroneous. To adopt his own words it ran thus:—"Broodiness is a provision of nature, not only for the purpose of incubation, but also a rest after exhaustion in laying;" "the true philosophical treatment, therefore," is, most persons would imagine, allowing them to sit a short time. But, no; my objector states, "Allowing them to sit for a few days, and also cooping, are practices injurious to the above ends."—W. B. TEGETMEIER, Wood Green, Tottenham.

PRIVATE VIEW OF BIRMINGHAM SHOW.

THE private view of the Birmingham Show takes place on Tuesday, the 11th of December. Admission to non-subscribers five shillings each. The office for the sale of poultry opens at ten o'clock that morning, and upon each following morning. There is no admittance whatever on the Monday previous. The Exhibition will be open to the public at nine o'clock each morning.

RULES FOR JUDGING POULTRY.

A PAPER, entitled "Proposed Basis for uniformity of Judgment at Exhibitions of Poultry," has been submitted by the Amateur Poultry Society of Dublin. I will make such remarks and comments upon it as strike me.

The first category comprizes all fowls with combs, and opens with the *Malay*. My objection begins at once. Why

assume that only one colour can be correct in these birds; that the neck and saddle should be "orange-red;" the breast, "black;" legs, "olive-brown." Must all the beautiful birds we see with yellow and white legs be at once discarded? What is to become of the White Malay; the pure Black-breasted cock; since this is to have "irregular bay markings?" Who is to breed to these niceties of colour? Take the requirements of the wing, for instance. "Shoulder, marone, steel-blue bar across; flight-feathers, bay." Or the head; "beak, horn colour; eyes, orange-red, sunken beneath a projecting eyebrow; comb, low, indented; wattles, very small, more properly folds of skin than wattles; earlobes, rudimentary; face, brilliant crimson." But let us turn to some of the requirements of the hen: "Neck, middle of feather brown, edges golden, shaft straw-colour; breast, brownish-fawn-colour; tail, brownish-black; back, brown; shaft of the feathers, straw-colour." Now, while there is so much nicety of colour required, no mention is made of pearl eyes, naked throats, and the comb, that essential of a fine Malay, is dismissed by simply saying it should be low and indented.

We next come to the *Chinese*. We have little to say about these; the colours are well understood, and they are birds of colour; but what is intended by saying the tail of the cock should be "drooping?" The same term is used for Malays. Is it meant that the carriage of the tail should be the same in both breeds? We fancy they are distinct. An upright tail is an abomination in a Malay; but a drooping one would be as much so in a Cochin-China.

Spanish are quickly passed over. It is expressly stipulated the cock shall have an upright comb, and the hen "must match, distinctive marks the same." Are we to infer the hen should have an upright comb? Legs are printed black, but altered to blackish-grey. Both are wrong; they should be leaden-blue. In none of these birds is there any mention of size, shape, or carriage, except in the tail of the cocks.

Dorkings claim much attention. It would be too long to transcribe all; but we will give samples. "Neck-hackles, bright straw-colour, either perfectly free from markings, or having the midrib black, and webs straw-colour; (if marked) markings must be distinct. Back and saddle the same. Wing-shoulder, clear straw-coloured, crossed with a broad, rich-coloured, steel-blue bar; flight-feathers, white, having the secondaries spangled or partly laced with black on the inner web." We are told the comb of the hen in good condition should fall to the right or the left. We can but think, if this had been printed for Spanish hens, and omitted for Dorkings, it would have been better. It is essential for the first, and, even the rules admit, it is only in cases of very high condition it occurs in the second. On the back, the "shaft of the feather should be white; webs, minutely dotted with black on whitish ground, presenting a grey appearance. The wing-shoulder, same grey as back; shafts, broad, and very distinct fawn-colour; flight, dark brown. Tail, full, rich brown, with minute dark markings; edges approaching silvery."

These are the Grey Dorkings. The stipulation is imperative that they must have single combs. The White are allowed to have either single or double.

Dorkings, Pheasant or Speckled, are soon disposed of. "Of doubtful purity, no markings to be relied on."

To adopt this, would be to exclude most of the best yards in England, and it would be, in the estimation of most of our judges, to adopt an imaginary and fallacious standard. It is held here, and, we believe, correctly, that there is neither colour nor comb as a mark or test of purity in Dorking Fowls; but if any preference should be given, and if size is a desideratum, then it is unquestionable that the double or rose-combed birds are the heaviest. It is easy to understand, that in breeds, whose merit is their beauty of plumage, or correctness of markings, that every feather shall be accurately described; but in one where size and symmetry are the chief points, where the main excellence is capability of providing the largest amount of food, and where nature has adapted them especially for this purpose; to cavil at the colour of a feather seems to us to border on the ridiculous. Wherever this is done, the breed degenerates, it loses both size and constitution; and to give these up, in order to make the Dorking a fowl of fancy plumage,

might almost rank with the philosopher in Gulliver's travels, who was devoting a life-time to soften marble, till it might be used for stuffing pillows, &c. But the breed will vindicate its own merits and vagaries. It is one of its characteristics. Take the birds of every colour and comb, let them run promiscuously, and, of course, interbreed. Show the produce, and the veriest tyro will at once pronounce them pure Dorkings. It is their right to be eccentric in comb and colour, and they exercise it; but, though single, cup, and double combs meet in a pen, with brown, grey, and speckled plumage, in spite of this variety, they are as distinct from other breeds, as an Ethiopian would be among Europeans. Take the splendid rows at Birmingham, and, at first sight, the fifth claws would seem the only points of distinctions between them and others; but on inspection, if there be a cross, how easily it is detected. The slightest touch of Cochin, Malay, or Game, alters the bird; there is a real character of this breed, which is independent of colour, and by that it should be judged.

By these rules, a bird having five claws, and the colour described, must be considered a Dorking; size is not mentioned, nor the shape of the hen. Indeed, it may be remarked here, that the fair sex in this paper are treated something in the fashion of women in the Koran. Why should latitude of comb be allowed to the White Dorking, and denied to the coloured? and why should the Speckled be considered of doubtful purity? I speak from experience, when I say, they may be bred with as much certainty as any other colour.—D.

(To be continued.)

THE HOUSEHOLD.

(We shall be much obliged by any of our readers sending us approved receipts in cookery, hints for household management, or any other domestic utilities, for insertion in this department of our column.)

APPLE BUTTER, OR "BUERRE AUX POMMES," is an excellent dish for tea, supper, or dessert, at this period of the year. It is more used on the Continent than with us, and placed on the table like Orange Marmalade is in Scotland. It has one great advantage, that a family having an abundance of Apple-trees, and fruit from the same, which they cannot use or dispose of to advantage, may, by the little trouble, and the aid of the following recipe, be enabled to preserve their crops as a luxury, until Pomona, in her bounty, displays before their eyes her crop for the next season. Take one bushel of sweet Apples, peel and quarter them, remove the core and pips, put them into a stewpan over a gentle fire, or a small charcoal stove, or a gas-burner would be preferable, as it is an operation which requires time. When boiling, and the Apples begin to be soft, add the juice of three lemons, one pint of rum, and one pound of loaf-sugar dissolved in a quart of water; boil it up, pour it into jars, cover with bladder, and keep for use. In France they put, in some parts, Limel, or other sweet wines. In Germany, new cider. In Switzerland, a boiled syrup of wine and cider. In fact, the flavour may be altered according to the means and taste of the parties making it.

I have now some made from a common Apple, to which I added to the one bushel of Apples a bunch of Muscatel Grapes, of a most delicious kind, given to me by a gardener in the neighbourhood, and an over-ripe Pine-apple, of three pounds weight.

PORK PIE WITH APPLES BOILED.—This is a very nice and economical dish at this period of the year. Cut the meat from the spare-rib of pork, in pieces of about four inches long, and two wide, and then mix in a plate some pepper, salt, and powdered sage; sprinkle a little on each piece of meat, then roll it round about the size of a thumb, put them on one side for the moment, then get a pie-dish, lay on the bottom some slices of Potatoes about half-an-inch thick, over them some slices of Onions cut thin, over these some slices of Apple the same thickness as the Potato; if the pie-dish is deep, another layer of each is required; then place over them the meat rolled up, cover it with a

nice pudding paste, tie in a cloth, and boil in a fish-kettle. A pie in a twelve-inch dish will take one hour. This is much more economical than baking or roasting the spare-ribs. The bones can be boiled for stock. This pie will do baked, but is not so good.

APPLE BREAD.—Take some good boiling Apples, boil them till quite soft, pulp them through a sieve, put into a bowl, or tub, four times their weight of flour, add the yeast, and mix up as for bread, set the sponge twice, bake in tins. This, when nicely done, makes a good, short, sweet, and wholesome bread. They will also mix very nicely with a soda cake for tea.

I once used a very large quantity of Apples in the following way, and it was very much liked, and also approved by medical men, as forming a change of diet. Take the same weight of Indian Meal, Bengal Cargo Rice, and good baking Apples; soak the Indian Meal for two hours previous to boiling, remove all that floats on the top of the water; this is the husk of the corn, and was what killed so many people in Ireland during the famine, until they knew how to use it. Boil all three in different vessels; have plenty of water; the meal will take two hours, under any circumstances, to render it fit for digestion. The rice should be boiled until it becomes a pulp; when done, mix them together, and turn out into a dish, or on the table, to get cold. It ought to be, when mixed and cold, as stiff as dough. When cold, mix some soda, and form them into cakes of about one pound each, and bake on the griddle or in the oven.

In page 414, Vol. XIV., you give some excellent recipes for *Tomato Sauce*. One tablespoonful of that sauce, added to a sauce-boat full of *Apple Sauce*, is a great improvement to it for Geese. The sauce, with a tablespoonful of *Chutnee* added, is good for roast pork.

LONDON MARKETS.—NOVEMBER 12TH.

COVENT GARDEN.

Notwithstanding the late unsettled weather, we have had a fair supply of home growth, both in Fruit and Vegetables. The shipments from the Continent rather increase than otherwise, nearly a thousand packages of *Pears* having come to hand during the week. Those in season now consist of *Chaudmontelle*, *Duchesse d'Angoulême*, *Crassane*, *Marie Louise*, and *Niel d'Hivers*.

FRUIT.

Apples, kitchen, per bushel	2s. to 4s.
" dessert	4s. ,, 6s.
Pears	4s. ,, 8s.
Peaches, per doz....	5s. ,, 8s.
Nectarines, per doz...	—
Plums, per sieve	4s. ,, 8s.
Pine-apples, per lb...	4s. ,, 6s.
Grapes, per lb.....	1s. ,, 6s.
Foreign Melons, each	2s. ,, 6s.
Figs	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 22s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts	—

VEGETABLES.

Cabbages, per doz. ..	9d. to 1s.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	2s. ,, 4s.
Broccoli	1s. ,, 2s.
Savoys	—
Greens, per dozen bunches	2s. ,, 3s.
Spinach, per sieve....	1s. ,, 2s.
Beans	—
French Beans, per half sieve	2s. 6d.
Scarlet Runners ..	1s. 6d. ,, 3s.

Peas, per hushel	3s. ,, 5s.
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Turnips, per bunch ..	2d. ,, 3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horsradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s. 6d.
" Cabbage....	6d. ,, 8d.
Endive, per score	1s. ,, 1s. 6d.
Celery, per bunch....	8d. ,, 1s.
Radishes, Turnip, per dozen bunches	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet	2d. ,, 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	—
Sea-kale, per punnet	—
Rhubarb, per bundle	—
Cucumbers, each	3d. ,, 8d.
Vegetable Marrow, per dozen	6d. ,, 1s.
Tomatoes, per punnet	1s. ,, 2s. 6d.
Mushrooms, per pottle	1s. 6d. ,, 2s.

HERBS.

Basil, per bunch	4d. to 6d.
Marjoram, per bunch	6d. ,, 9d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch ..	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch ..	2d. ,, 3d.
Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, NOV. 9.—The arrivals consist of about 15,000 quarters of Oats from abroad, and 2,900 of Wheat. This morning there is considerable firmness in the Wheat trade, and English descriptions are quoted 1s. higher. Barley of all descriptions is from 1s. to 2s. dearer. Old Oats are held for more money, and New Corn is in some cases 6d. higher. In other things there is not a large trade passing, but quotations are fully as good.

WHEAT.		PEAS.	
Kent and Essex, red,		Boiling, per qr.....	53s. to 56s.
per qr.....	84s. to 86s.	Common.....	43s. „ 45s.
Ditto, white	90s. „ 94s.	Grey.....	48s. „ 50s.
Norfolk and Suffolk..	78s. „ 80s.	Maple.....	48s. „ 50s.
Dantzic	92s. „ 94s.	SEEDS.	
Rostock	81s. „ 90s.	Turnip, White, per	
Odessa	73s. „ 76s.	bushel.....	—
American	92s. „ 91s.	Swede	—
BARLEY.		Rape	84s. „ 86s.
Malting	44s. to 45s.	Linsced, sowing, qr..	80s. „ 84s.
Grinding and Distil-		„ crushing ..	70s. „ 72s.
ling	34s. „ 36s.	Clover, English, redcwt	60s. „ 68s.
Chevalier	36s. „ 38s.	„ Foreign do.	52s. „ 57s.
OATS.		„ White	68s. „ 73s.
Scotch, feed	34s. to 36s.	Trefoil.....	28s. „ 32s.
English	26s. „ 27s.	Rye, per qr.....	52s. „ 54s.
Irish	30s. „ 32s.	Tares	46s. „ 52s.
Dutch Broo	29s. „ 30s.	„ Winter, bushel....	8s. „ 9s.
Danish	30s. „ 32s.	Canary, per qr.....	61s. „ 72s.
Russian	26s. „ 29s.	Hemp	54s. „ 57s.
BEANS.		Linsced Cake, per	
Harrow	48s. to 50s.	ton.....	£11 to £12 10s.
Pigeon	52s. „ 54s.	Rape Cake ..	£6 10s. „ £6 15s.
Tick.....	44s. „ 48s.	Indian Corn	47s. „ 50s.

HOPS.

BOROUGH MARKET, FRIDAY, NOV. 9.—The demand for fine Hops during the past week has continued moderate, but brown and inferior samples are heavy of sale. All parties are now waiting the announcement of the duty, which is expected to be very large. Reports having been industriously circulated that the Hop Factors are unable to warehouse any more Hops, we can distinctly state that such reports are unfounded, as all Hops can be received as quickly as they can be obtained from the railways. Mid. and East Kent, 75s. 95s. to 120s.; Wcald of Kents, 70s. 84s. to 100s.; Sussex Pockets, 70s. 80s. to 90s.

HAY AND STRAW.

Clover, 1st cut per		Meadow Hay, new	95s. to 120s.
load	110s. to 140s.	Rowan	80s. „ 90s.
Clover, new	120s. „ 135s.	Straw, flail	30s. „ 36s.
Ditto, 2nd cut	90s. „ 140s.	Ditto, machine	28s. „ 30s.
Meadow Hay	90s. „ 130s.		

POTATO.

SOUTHWARK WATERSIDE, NOV. 5.—Supplies are very short, one cargo only of Scotch Regents in the market. The weather is cold and favourable to sales, and we have a brisk demand at our quotations, which have an upward tendency. Kent and Essex Regents, 90s. to 100s.; ditto Shaws, 85s. to 90s.; York Regents, 100s. to 105s.; Lincolnshire Regents, 90s. to 95s.; Wisbeach and Cambridge Regents, 85s. to 95s. Bedford Regents, 90s. to 100s.; ditto Shaws, 85s. to 90s.; Norfolk Regents, 90s. to 95s.; ditto Whites, 85s.; Scotch Regents (East Lothian), 90s. to 100s.; ditto (Red Mould), 100s. to 0s.; ditto (Perth and Fife), 90s. to 95s.; ditto (North Country), 90s.; Scotch Cups (Perth and Fife), nominal, 75s. to 80s.; ditto (North Country), 75s.; Irish Kemps and Clusters, 80s. to 85s.; ditto White Rocks, 80s.; ditto common Whites, 75s. per ton.

MEAT.

Beef, inferior, per		Mutton, middling 3s. 10d. to 4s. 4d.	
8lbs.....	3s. 4d. to 3s. 8d.	Do. prime	4s. 6d. to 4s. 10d.
Do. middling.....	3s. 10d. to 4s.	Veal	3s. 10d. to 4s. 10d.
Do. prime	4s. 2d. to 4s. 4d.	Pork, large.....	3s. 8d. to 4s.
Mutton, inferior 3s. 4d. to 3s. 8d.		Ditto, small....	4s. 4d. to 3s. 4d.

POULTRY.

There has been an ample supply of Poultry during the week, with a dull trade. The demand has seldom been so bad as it is now, at this season of the year.

Large Fowls 4s. 6d. to 5s. 6d. each.		Hares	3s. to 3s. 6d. each.
Smaller do....	3s. to 3s. 6d. „	Turkeys....	6s. 6d. to 9s. 0d. „
Chicken.....	1s. 9d. to 2s. 3d. „	Larks, per doz.	1s. 6d. to 2s. „
Geese	6s. 6d. to 9s. „	Rabbits ..	1s. 4d. to 1s. 5d. „
Ducks	2s. 9d. to 3s. „	Wild do.	11d. to 1s. „
Pheasants	3s. to 3s. 6d. „	Pigeons ..	8d. to 9d. „
Partridges	2s. to 2s. 3d. „	Wild Ducks ..	2s. to 2s. 6d. „
Grouse	1s. 9d. to 2s. 3d. „	Teal	8d. to 9d. „

PROVISIONS.

BUTTER.—Cwt.		CHEESE.—Cwt.	
Dorset, fine	104s. to 108s.	Cheshire, fine	74s. to 90s.
Do. middling.....	90s. „ 96s.	Gloucestershire, dhle.	70s. „ 76s.
Fresh, per doz. lbs.	12s. „ 13s.	Ditto, single	60s. „ 74s.
Friesland	103s. „ 112s.	Somerset.....	70s. „ 76s.
Kiel	94s. „ 95s.	Wilt, loaf.....	68s. „ 78s.
Carlow	102s. „ 106s.	Ditto, double.....	72s. „ 78s.
Waterford	98s. „ 102s.	Ditto, thin	54s. „ 64s.
Cork.....	98s. „ 102s.	Ditto, pines	72s. „ —
Limerick.....	100s. „ 102s.	Berkley, thin	62s. „ 66s.
Sligo	91s. „ 102s.	HAM.—Cwt.	
BACON.—Cwt.		York, new	80s. to 90s.
Wiltshire, dried ..	80s. to 84s.	Westmoreland	76s. „ 86s.
Waterford	74s. „ 76s.	Irish.....	74s. „ 84s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11½d, the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. the 4lb. loaf, while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. „ 1s. 2d.
Ditto Tegs and		Leicester fleeces...	1s. „ 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hlog-		Combing skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

WINTERING PELARGONIUMS (*A Subscriber*).—See what Mr. Fish says to-day.

PALE YELLOW COCHINS (*J. T. Fox*).—The advertisement appears again to-day, with the address.

PATENT (*W. H. Warner*).—There are offices in Chancery Lane, and elsewhere, for you to apply to; it is quite impossible for us to give such information.

STRIKING CUTTINGS (*An expectant among many*).—Mr. Beaton stated, the other day, that he hoped to give the information in January. That will be quite in time for the cuttings.

RICE FOR POULTRY (*An Old Subscriber, Morayshire*).—It is partly rice in the husk, called in India, Paddy, and mixed with Turnip seed. Not a bad mixture. If for table-chicken, put a Grey Dorking cock with your Shanghai pullets. There is no objection to Bees being near your poultry-house.

CROSSING WHITE AND BUFF SHANGHAES (*A Subscriber*).—Birds bred between White and Buff Cochins cannot be depended upon. It is said all the Blacks were produced in this way. The chicken may have every appearance of purity, but in breeding from them they will throw back, and though their appearance shall deceive even the best judges, yet the purchaser of them will find, in breeding, that he is constantly hatching birds of whose parentage he knows nothing, and for which he cannot account. The truth is, they were the result of the cross you mention. A shade of metallic green on the plumage of a black bird is rather desirable than otherwise.

COLOUR OF ROUEN DRAKE'S BILL (*Clericus*).—The bill of the Rouen Drake should be a greenish-yellow, exactly like the that of Wild Mallard. Rouen Ducks, in both sexes, should be like the Wild Duck as possible, but much larger in size. The ash, or leaden-coloured bill, is a defect. It is found in the Widgeon, but never in the Wild Duck.

DORKING COCK (*R. H. B.*).—We cannot see anything in your description of your Dorking Cock to disqualify him. We do not consider colour, in this breed, an essential point. Judging from your description, he is more likely to disqualify others than be disqualified.

PERRY.—*G. L. C.* will be much obliged by a recipe for making this, or any kind of wine from Pears.

RED SPIDER ON VINES (*New Subscriber*).—You may adopt the usual mode of treatment, as you suggest.

NAMES OF PEARS (*A Beginner*).—1. Napoléon; your soil is too cold for it. 2. Passé Colmar. 3. Marie Louise. 4. Winter Nelis. 5. Unknown. 6. Beurré de Rance. 7. Marie Louise.

NAMES OF PEARS AND APPLES (*P. J.*).—1. Marie Louise. 2. Duchesse d'Angoulême. 3. Unknown; an inferior variety. 4. Comte de Lamy. 5. Dunmore. 6. Marie Louise. 7. Unknown; an inferior variety. 8. Beurré Diel. 9. Vicar of Winkfield. 10. Unknown. 12. Court of Wick. 13. Unknown. 14. Scarlet Nonpareil. 15. Golden Knob.

(*A. M. R.*).—The Apple seems to be the *Brown Kenting*, and the Pear is *Beurre Diel*.

NAMES OF FRUITS.—*Loceon*, and *Town Close* have been received and are under consideration.

WEEKLY CALENDAR.

D M	D W	NOVEMBER 20—26, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
20	Tu	Sun's declination, 19° 39' s.	29.876—29.175	44—26	S.W.	17	28 a 7	3 a 4	2 47	11	14 16	324
21	W	PRINCESS ROYAL BORN 1840.	28.975—28.924	43—26	W.	—	30	2	4 12	12	14 2	325
22	Th	Fieldfare arrives.	29.061—29.057	41—19	N.E.	—	32	1	5 37	13	13 46	326
23	F	Redwing arrives.	29.266—29.180	42—30	N.E.	—	33	0	rises.	☺	13 30	327
24	S	Grey Wagtail arrives.	29.487—29.130	40—26	N.	—	35	111	4 a 5	15	13 13	328
25	SUN	25 SUNDAY AFTER TRINITY.	29.942—29.302	39—28	N.E.	—	36	58	4 47	16	12 55	329
26	M	Larch leafless.	29.932—29.797	34—29	S.W.	—	38	57	5 40	17	12 37	330

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 47.6°, and 32.1°, respectively. The greatest heat, 59°, occurred on the 20th, in 1844; and the lowest cold, 21°, on the 21st, in 1853. During the period 98 days were fine, and on 98 rain fell.

ASPLENIUM VIRIDE.



This is called, in English, the *Green Spleenwort*, *Green-ribbed Spleenwort*, and *Green Maidenhair Spleenwort*, and, indeed, it is its greenness, lighter and brighter in the leaflets, and entirely so in the stalk, which chiefly distinguishes it from *Asplenium trichomanes*.

The main root is dark chesnut-coloured, and somewhat more earrot-shaped than that of *A. trichomanes*; the fibrous roots are also less numerous than in that species. The top of the root is tufted, and from the tuft arise the fronds. Of these the stalks are rather more upright, and more free from leaflets at the bottom than in *A. trichomanes*; this bottom part is dark chesnut-coloured, but the whole of the upper part is green, and this is the chief permanent character distinguishing it from *A. trichomanes*. The stalk is smooth, the lower third without leaflets, and the whole varying between about three and ten inches in height. The greater stature being found in specimens growing in moist, sheltered situations. The end of the frond is

sometimes divided into two or three branches. The leaflets vary much in form, being mostly rhomboidal, but sometimes egg-shaped, and at others spear-head shaped, usually tapering towards their stalk, which is very short and slender, not always alternate, and not so close together, nor blunt-ended, as in *A. trichomanes*, but their upper edges are much more scolloped than in that species. The mid-vein produces side-veins, usually alternate, which are mostly, but not always, forked, and their ends rarely extend to the edge of the leaflet. The fructification is from two to six masses on each leaflet, more yellowish-brown than in *A. trichomanes*, and more in the middle of the leaflet than in that species, and though they finally usually run together and cover the back of the leaflet, yet they never reach its edge, but leave a regular border of the leaflet round the ripe fructification. At first the fructification is covered with a narrow membrane; but this is thrown off as the seeds (spores) ripen, which occurs about the end of August.

The frond branching at the end is not permanent even in the same plant, yet some botanists have distinguished it as a variety. It is the *Asplenium trichomanes ramosum* of Linnæus, and the *Trichomanes ramosus* of Bauhin and some others.

It will be seen from the above description that the species very closely resembles *A. trichomanes*, though, as observed by Mr. Francis, it is immediately distinguished from it by the lighter colour of all its parts, and especially the greenness of the stalk, its less-spreading fructification, differently shaped and more alternate leaflets, which leaflets on the lower part of the frond are generally wide apart, whilst the leaflets near its top are more crowded, and the whole plant is much more delicate and graceful. — (*Analysis of British Ferns*. 52.)

It is found on moist rocks and old walls in some of our mountain districts. In *England*, not further south than Derbyshire; but it has been gathered in Northumberland; between Widdy Bank and Caldron Snout in Durham; on Mazebeck Sears in Westmorland; at Gordale, Ais-la-beck, Richmond, Settle, near Halifax, and at Black Bank, near Leeds, in Yorkshire. In *Wales*, on Cader Idris, Crib y Ddeseil, Clogivyn, and Snowdon. In *Scotland*, in Ross-shire, in Cawdor Woods, near Nairn, at the foot of Benmore, Sutherlandshire, and all over the Highlands. In *Ireland*, on Turk Mountain, Killarney; Ben Bulbin, Sligo; and near Lough Eske on the Donegal Mountains. The branched sub-variety was

found, by Mr. Plukenet, on a stone wall in Mr. Owen's garden, at Maidstone, in Kent, but we think this must have been introduced there.

Another sub-variety has been found with its leaflets deeply lobed and cut.

It scarcely can be doubted that the old botanists and herbalists confounded this species with *A. trichomanes*, and we should not have been aware that they had noticed it at all, if Gerard, Bauhin, Ray, and others, had not mentioned the branched-fronded sub-variety, which Gerard called *Trichomanes fœmina*, whilst Ray and others described it as *T. ramosum*. The first botanist recognising it as a distinct species was Cordus, who, in 1561, published it in his "Historia Stirpium," under the title of *Adiantum album*, though he gives the same woodcut of it as he does for *Trichomanes*. The first to name it *Asplenium viride*, we believe, was Hudson, in his "Flora Anglica," published during 1762.

It is usually removed with much difficulty from its native places, but we have succeeded in cultivating it by adopting the same precautions as we have directed for *A. trichomanes*. It requires, even more than does that species, attention to avoid stagnant air and stagnant water.

THE BLIGHTS AND OTHER DISEASES OF FRUIT-TREES.

THE term *blight* has been so loosely employed, that I am not certain that I ought to have selected such a term to express the various mishaps which occur amongst our fruit-trees in Britain, whether within doors or out-of-doors; and yet, I know of no other title in the present state of gardening language that will so readily include my notes. However unscientific the term *blight* may be, it will prove as familiar as household words to nine-tenths of our readers. It may very fairly be asked, however, by persons who look beyond the surface of things, "What do you intend to comprise under the term *blight*?" I answer, at once, that I mean all those insects which attack our fruit-trees in general, and with which most of our readers have had too close an acquaintanceship; and, in addition, those obscure fungi of which we know little, except by their disastrous effects.

I do not propose to offer a cure for any of these evils, but would rather, in my present observations, point to preventive measures; and this, I conceive, is the period to do so, inasmuch as I feel assured much of the evil springs from the root itself.

In order to make myself understood, I will just glance at our fruit-trees in succession, and examine into the ravages of their enemies.

THE APPLE.—Here we have, foremost, the notorious *American blight*, which everybody knows. Now, this insect is said to retire into the ground during the winter, and to prey on the roots during that dormant period, and there seems no reason to doubt it. I have never attacked it under those conditions, but I do think that its position is anything but secure, if we were to betake ourselves earnestly to its extirpation. I was sorely troubled with this pest two or three years since; and last autumn I had become almost heartless at the serious appearance of many of our Apple-trees. I had repeatedly applied spirits of turpentine to the larger patches, and had, in a great measure, conquered them in the nooks and crannies; but they had, in many cases, completely invested the upper twigs, or young wood; and

I dare not pursue them all over the tree, knowing, by experience, that much turpentine is highly prejudicial to the tree. The last hard-winter, however, came to my rescue, and, as it would appear, totally destroyed them from the inferior branches, and nearly extirpated them from the main branches and stem.

But one thing may be here named as, perhaps, deserving as much credit in the affair as the severe winter. As soon as the leaves were falling—about the first week in November—I had the trees syringed heavily twice over, on two successive days, with a mixture of soft-soap, water, and stable-liquid, using four ounces to the gallon of soap, the stable-liquid constituting nearly one-half. This was made to saturate every cranny of the trees, and so profuse was the application, that the soil was completely caked with the falling liquid. I am of opinion, that the blight was then near the surface of the soil, and, if so, doubtless, numbers would be destroyed. I have now nearly cleared the whole garden of this pest, having applied spirits of turpentine the moment a patch appeared, through the summer. I shall, however, repeat the dose again in a few days, and hope to report an entire clearance. Our trees, formerly the admiration of all, presented such a bare appearance last September, that I almost despaired of ever getting a good crop again; but I have gathered at least fifty bushels from the mere espaliers of the kitchen-garden, and finer samples were never seen.

Whilst chatting about the Apple, let me point to a kind of *Aphis* which generally comes forth about the time the blossom-buds are on the eve of unfolding. This pest is sometimes so numerous as fairly to wedge up the buds, and prevent their due expansion. I cannot advise any plan, at present, where fruit-trees are extensively grown. We all know that tobacco-water is destructive of all, or nearly all, the Aphides, but then, it is so expensive. Those, however, who have but a few pet trees, should apply it directly they perceive the fly commencing. I have sometimes thought that smothering them with dust or soot might check their ravages; and our amateur friends might try some little inexpensive experiments of the kind.

Another sad pest of the Apple-tree is a *rusty-looking fungus*, which generally occurs towards the end of August. This, when it once commences, seldom ceases whilst a green leaf is left on the tree, which ultimately appears as though it had been scorched. I am not aware that any remedial measure is known. It is rather a matter, which, beyond doubt, may be in the main prevented, and to which course I will shortly refer.

Another serious pest of the Apple is the *Red Spider*, especially on hot or gravelly soils. And here it may be observed, that since sulphur is known to be destructive of the fungi in general, also to the Red Spider, and as these two enemies generally commence operations about the same time, and not unfrequently act in concert, it is well to remember that much may be done by the timely application of sulphur.

Here I would remark on the vast influence exercised by certain soils as a predisposing cause to insects, &c. I am well assured that all soils which have a tendency to become very dry, or very wet, for a long while, predispose the Apple to the attacks of insects. How this happens, I am not prepared to aver; but suppose that under such circumstances a torpid or sluggish root-action occurs, and, of course, the system of the tree possesses sap of a less watery character. Thus, a newly-planted tree, of a good size, is almost sure to be liable to the attacks of insects, or fungi, the first summer; and so with over-severe root-pruning. This all points to the propriety of examining well the state of the soil before planting a tree, or an orchard, and taking means to correct the extreme tendencies to dryness, or sourness, through a too retentive character.

But in very sandy and dry soils, the water-pot will prove of eminent service to the Apple, if used in time. It is of no use merely sprinkling; nothing less than a thorough penetration of the whole mass of soil which contains the roots will suffice. And if, on the very heels of this, a thick coat of moist mulch, of any kind, can be applied, the success will be proportionately complete, the mulch being laid four inches in thickness. This should be performed the moment the insects, or fungi, appears, providing the weather is dry; otherwise the evil must be sought in other quarters. Where these evils are suspected to arise from a soil or subsoil highly retentive of moisture, nothing short of drainage can be expected to cure the evil; and this, probably, accompanied by transplanting. Indeed, in all cases of amelioration by means of draining, where trees are standing, it is well to take them carefully up and to replant them, although they may have been planted half-a-dozen years. Where soils have been soured by stagnant moisture, they seldom gain a healthful condition without being broken up,

Thus much for soils, as affecting the mishaps that occur through insects or fungi; let us now see what remains as to this question. Whether Apple-trees have been attacked, or no, in the previous summer, it is well, in my opinion, to give them an annual dressing of some kind. Our great orchardists, our men of acres, will, of course, say it is impossible; but we of the garden must not allow ourselves to be hedged in by their rough and off-hand plans. It is rather for us to lead them than the reverse; and it is sometimes expedient to do that in a few poles of land, that would cease to be so in as many acres. Besides, we have a more delicate and very superior class of fruits to deal with than they have; and it is probable that our superior dessert Apples would, as dwarfs, make no great show in a cider district with cider Apple management.

We all know that brushing in compositions is tedious work, especially since labour has become so much more valuable; but there is no need for it, as to a general dressing. If I may suggest annual dressings by means of the syringe, and supposing it requisite to meet as many of the enemies of the Apple as could be in one mixture, it should be composed nearly thus:—soft-soap, four ounces to the gallon of tepid water; add four handfuls of sulphur to each gallon; then add one gallon of stable-liquid, and thicken the whole finally to the consistence of a thin paint, by the addition of clay water, made by working up clay in tepid water, and straining it through a coarse cloth; a few handfuls of lime may be added. With such a liquid, I would have the trees syringed twice; once in November, when the foliage is nearly all cast, and a second time in the beginning of March, after the trees are pruned. This, I think, will prove of eminent service, and will destroy the coccus, or scaly insect, as well, which I had forgotten to name in its proper place, and which is occasionally a great injury to Apple-trees.

R. ERRINGTON.

(To be continued.)

of the country. It was listened to very attentively, and its merit frequently acknowledged by loud and enthusiastic applause. Several remarkable and curious specimens of vegetation were exhibited and explained by Mr. Shepherd. The first was a magnificent specimen of a Fern, which Mr. Shepherd stated was probably a new species of the genus *Platyserium*. It was discovered in the Illawarra district by a Mr. Richards, who, although he did not make any pretensions to a scientific education, possessed, nevertheless, a correct appreciation of the true beauties of botany. Mr. Shepherd took occasion to compliment him highly on the perseverance and taste which he had displayed in the prosecution of his useful and instructive researches. He concluded by suggesting that a prize should be awarded to Mr. Richards, for the trouble he had taken in furnishing the Society with so valuable a subject for consideration. The Fern was exhibited in its natural state, completely encircling an iron-bark stump about a foot in diameter. Another new plant, which elicited much attention, was exhibited by Mr. Jessup. It is a specimen of the *Cypripedium spectabilis*, and is the first of the kind that has flowered in the colony. A third rare and singular plant, from the Island of Guadaleanar, was exhibited and explained by Mr. T. W. Shepherd, and deservedly admired by the audience.—(Sydney Morning Herald.)

PREPARING POTS FOR POTTING.

It has often struck me as anomalous, that if there is really nothing new under the sun, how it is that some of the present race of gardeners lay claim to a new discovery, by mixing all sorts of abominations with water, and yet being, themselves, able to turn out that same water as clear and scentless as the sprays and sparklings at the fountains of the Crystal Palace. The practice must have been of old, and kept in reserve for the age which produced the present Lord Mayor. Be that as it is, there is one thing resulting from the practice, which is, certainly, new in gardening, and it is not only new, but very difficult to find out, and no less difficult to believe in it after it is discovered and made known; at least, I find it so; for I have been about, this autumn, lecturing on the new discovery, and not one in ten, I find, believe the story; or, if he does, will not act on it to nearly the same extent insisted on by the speaker. I shall, at last, write down the lecture, and wait, in better hopes of a brighter future. But, no; I shall merely give the heads of the lecture, to save time and space.

Well, it is as clear to me, as it is muddy against the clear liquid-manure waterers, that their water is not so clear as they say; that their new pots suck in the hidden poison from the clear water, to such a degree as is sufficient, for the time being, to save their plants from, say chronic diseases; but it turns out, I mean on the outside of the pots, ultimately to do the plants as much or more harm than it ever did them good. I found this out by a long and careful examination among a great number and variety of very dirty pots; and the way I account for it is this—when I was young, old pots used only to be nasty; but in these days, I find them to be actually poisonous to fresh leaves, green shoots, and flower-buds—that I am certain of. The green slime and brown softness with which old pots, in the good old times, used to be covered, did no more damage than “fogging off” the leaves when the state of the weather would not allow of much air being given to the plants. November was then the worst time for “fogging;” and so it is now, to a certain extent; but not the worst of all. It is when the frost comes, and when a little fire is put on, and the glass cannot be moved, that the great destruction, or greater deterioration, takes place among soft bedding

THE SYDNEY HORTICULTURAL IMPROVEMENT SOCIETY. —The first monthly meeting of the Horticultural Improvement Society took place, July 3rd., at the Royal Hotel. The attendance was unexpectedly large, and comprised a considerable number of ladies, whose presence not only graced, but added considerable interest to the proceedings. In the absence of the vice-presidents, Mr. Reynolds was voted to the chair, and briefly explained the object for which the meeting had assembled. The secretary, Mr. Deane, then read a very interesting paper from Mr. Muspratt, on the vegetation

plants and seedlings. The pots are so impregnated with the essences of the strong, clear water given since last spring, that they, the said essences, are now actually in a conereted form on the outer surface of all the dirty pots which had strong water given them last summer; the same as the "furring" of the inside of a tea-kettle from "clear," hard water holding lime in solution.

The way to know if it is the "fogging" principle or the poisonous exhalation from the crusty pot, which affects the leaves, is this—the "fogging" principle invariably takes off the youngest leaves first; the poisoned air never hurts the younger leaves till the old leaves are first charged with it; and the reason is this—old leaves, unless they are too old for work, suck in whatever kind of air that may surround them; while young leaves, up to a certain age, never suck at all, and so escapo the poison from the dirty pots; but, being the more delicate and tender of the two kinds, they are the more easily affected with damp.

My own pots are not so much crusted, or, rather, were not so at the autumnal potting, as some other pots which I have seen on my rounds, and the reason for this seems to me to be, that I never did "clarify" the strong waters for them; and that, consequently, the stout brown did not impart the noxious crust so readily to the pots. Still, my pots were not quite so free from impurities as they ought to have been at the last potting from the borders; and I was hurried with that potting, to get in the plants from the wet. From what I observed with others, I kept a watch to see how my pots told on the plants after being put in close confinement under glass, and I soon perceived dull, hanging looks, generally, among all the plants.

I have often taken notice of the same disagreeable appearance at this season, without having sufficient time on my hands to enquire into the actual cause of this; and I may have thought it to have resulted from too much freedom with the roots at taking-up time; but now, since I have had time enough to examine the matter properly, I find that it is very dangerous ever to use dirty pots which have been formerly watered with any kind of liquid-manure. That such manure-water impregnates the pot, to a dangerous extent, and that the impregnating matter is very hurtful, as I have just told; and that the only remedy is to wash and scrub every such pot as often as any disagreeable matter appears to come through it, or, at all events, to have the pots clean at every potting.

I find that a pot may appear to be clean, and dry, and free from any brown or green slime, and still be a dangerous pot to use without a good scrubbing. The clear liquid-manure does not always render a pot disagreeable to the eye, while it may be in the most poisonous state for a plant, particularly a soft-wooded plant. You have only to apply a certain test, which I shall describe presently, to see the real danger of the case; and this brings me home to tell of how I succeeded to my own perfect satisfaction.

As soon as I perceived the difference and change in my stock, I collected all my sparo pots, and put the different sizes together in a pond; next day, or the day after, I took a hard scrubbing-brush and a bench to the side of the pond, and began a regular cleansing, inside and out, and got all the dirt off with very little trouble; but those pots in which I applied liquid-manure had a hard crust of different shades of white, or red, or brown, and these I made more conspicuous with the brush than they were before, without being able to remove the crusts, save very partially. I knew the alkali in soft soap would remove any stains caused by vegetation on pots, stone floors, steps, composition, and the like; but it had very little effect on the crust from the liquid-manurings, or from the manured composts used in the pots. I then put all my crusted pots to one side, till I had all

my other pots clean and dry for use, then I put a large handful of soda into a few gallons of water in a tub, plunged the crusted pots in it, and then left them for a couple of days, when the crust would yield before the brush, as the beard would before one of Meehi's magic razors; and the thing was off hand that very day.

Notwithstanding, all my pots in use were not to my mind at all after this scrubbing; the whole must go through the process, or I am baffled after all. I then took so many of one size, 48-pots, to the greenhouse, and exchanged them for so many dirty pots, first turning out the ball on my hand, regulating the crocks, snatched at such worms as I could see, or pricking in a long darning needle after them or where I expected them to lodge—this pricking soon drove the fellows out on to the surface of the ball, and so to their utter destruction; then, a dry, clean pot, as good and better than a span-new one, was whelmed over the ball, and with a few strokes of the bottom of the pot on the hand, and a little shuffling on the surface with the fingers, to make all straight and tight on the top, the plant was in the best pot for it in the place; and so on with every plant in this curious collection of odds and ends and middlings.

In less than a fortnight, what with all this, and the watering from a rain-water butt, which was chilled from the boiler in the kitchen-range, you never saw such a sudden change, from moping and drooping, to lively, erect, green, and shining leaves! Why, it is a real pleasure to watch them now, or to spend an hour amongst them, when you can spare it; and all through their cleanliness. Yet, I have seen a whole house full of pots as clean as new dolls, at this season, without the plants looking nearly so well as mine do. I have had such a house to do with, myself, over and over again, but never, till now, did I prove the value of newly-made pots to be inferior to old pots *properly prepared*.

I see, plainly enough, how this difference comes about, at least, late in the autumn. New pots go on for a long time, sucking away the moisture from the balls, and parting with it by evaporation from the outer surface; this evaporation causes such a degree of cold to the roots as few would believe. Plants, in general, do not want much water at this late season; but put them into new pots, and, what with the sucking of the pots, and the evaporation afterwards, you must water three times oftener than the plants require, to keep up this drain, besides the chill to the roots inside from the cold caused by this very evaporation. All this I have also proved to a certainty, under my own eye, this very season.

Here, I ought to make a suitable apology for having ever recommended the use of new pots in preference to old ones, for certain seeds and plants, without the proper qualification; that qualification, I believe to be this: that all new pots whatever, and for whatever purpose, ought to be thoroughly wetted through and through in soft pond water before a plant is put into any of them. They should also be quite dry inside, at least, at potting time; also if they, or any pots, are even damp in the inside when filled, the layer of soil next to the pot will stick to the damp sides, the roots will hold still closer when they reach the sides, and the consequence will be, that when the ball is turned out, the tips of the roots will snap off like glass, holding to the sides of the pot, to the certain injury of the plant, if this is done during the growing season. When you turn out a ball, and find some of the roots broken off and fixed to the sides of the pot, you may depend upon it that pot was too wet for potting at the last shift. There is a way to get over this, however; and, by a strict attention at the potting bench, I would not hesitate to pot in wet pots taken in from the rain; that way is simply to have a potful of perfectly dry sand, or dusty peat, or very

light soil, to put a handful of the dry stuff in each pot, and to shake it about all over the surface, leaving what sticks to the pot, and then to pot. D. BEATON.

HORTICULTURAL SOCIETY OF LONDON.—The Council of the Horticultural Society have resolved, as appears by the following statement, to revert to the old system of enlarged Exhibitions in London; and it is some consolation to know that under this system the Society attained its greatest success. It is understood that in consequence of this resolution, a large part of the hothouse collections will be immediately disposed of, so as to reduce the expenses of the Garden, and leave additional funds available for the encouragement and reward of Horticultural skill.—

Horticultural Society of London,
21, Regent Street, Oct. 23.

In the Annual Report, made by the Council at the last Anniversary, the attention of the Fellows was directed to the very serious fact that, during the three previous years, the income of the Society had been unequal to its expenditure, and that as much as £1,250 had been added to the debt during the year 1854-5. At the same time, a hope was expressed that the causes which brought about so large a deficiency would prove temporary.

The Council have now, however, with very great regret, to report that this hope has proved fallacious, and that the debt will have been found to be again considerably increased before the close of the present year, if the present establishments of the Society are maintained in their integrity.

It has been annually shown by the printed Reports that the principal source of income, since the year 1833, from which the Garden has been maintained, was the Exhibitions there, the net produce of which was as much as £3,024 in the year 1844. This fund has been gradually diminishing. In 1853 it was £1,714, in 1854 only £455, and in the present year, instead of yielding any increase, the Exhibitions have been productive of a loss estimated at about £300.

After giving this subject the best consideration in their power, and consulting Fellows upon whose judgment they are disposed to rely, the Council have arrived at the conclusion that the Garden Exhibitions will not be profitable in future. The distance of the situation from the metropolis deters visitors from repairing to Chiswick as formerly, when no similar meetings were held in places of more ready access. Nor can it be doubted that the proximity of the great Government Garden at Kew, accessible as it is by railway and water, and with whose attractions it is hopeless to contend, annually renders the Society's Garden of greatly diminished interest. Under these circumstances, the Council have no alternative but to reduce the latter establishment within very narrow limits, if not to relinquish it altogether; and, at the same time, to realize some at least of the valuable property accumulated there towards liquidating the debts of the corporation.

The history of the Society clearly shows that it was in its most flourishing state in the year 1821, at which time its operations were confined to the encouragement of horticulture by rewards, and the publication of its Transactions, to exhibitions in London, to the distribution of seeds, &c., obtained from its correspondents, and to the maintenance of a small and unexpensive garden. The subsequent enlargement of the Society's undertakings, successful as they have been for a time, have ultimately proved beyond its resources; but the Council hope, and confidently expect, that by reverting to the old system of 1821 the Society may be restored to its former prosperity; and by restricting themselves to the encouragement of its original objects, its utility and popularity may be maintained undiminished.

The Council are now engaged in a careful consideration of the manner in which these great changes can be best effected, as well as of the alterations which may be consequently necessary in the rate of subscription of the Fellows. Immediately after their plans shall have been matured, they will be submitted to the sanction of a General Meeting. In the mean time, in order not to lose the present season, the Council have ordered an immediate sale of stove

plants—the continued cultivation of which, even through the ensuing winter, would cause a needless increase of the Society's debt—and of some other portions of the corporation property, such as Herbaria, &c., which can be disposed of without detriment to the efficiency of the Society.

Signed, by order of the Council,

JOHN LINDLEY, Vice-Secretary.

—*Athenæum*.

SHORT CULTURAL NOTES.

LUCULIA GRATISSIMA.

"THEOPHILUS" complains that there seems much diversity of opinion upon the management of this plant, and wishes to know if he can keep it and bloom it in a cool greenhouse, from which the frost is merely excluded. I fear, I must say, No. If the house, in winter, averaged from 45° to 50°, I would say, Yes; more especially if he had such conveniences as a frame or pit to keep the plant in a moist heat, when he first received it, and when making its first growth, and until it became of some size. Fine blooms were shown in January, 1854, at Regent Street, from a wall of a dwelling-house in the garden of N. Luscombe, Esq., Combe Royal, Kingsbridge, South Devon, when all the assistance the plant received was any it might obtain from the heat of the wall, and a mat hung in front of it in severe weather. When the plant is large enough to be planted out, it would bear a low temperature in such a place, and more especially when planted out in a conservatory, as at Chiswick, with full exposure to light, which it would not long stand when kept in a pot, with surface of the pot exposed. My own experience would say, that in a lowish temperature, next to being planted out, the plants will thrive better in a box of wood than in a pot, and in a pot all the better, if the one in which it is grown is encased in another one, and the space between filled with moss. All things considered, it will be found to thrive best in an intermediate house; a cool greenhouse being too cold, and a common stove too warm, unless at certain seasons. An article will be found on its culture at p. 10 of the last volume, and another at p. 108 of Vol. X., or No. 246. From these it will be seen, that one difficulty of treating this plant successfully in a cool greenhouse arises from the fact, that like most large-leaved plants of the kind, nurserymen, and gardeners, too, are in the practice of hurrying on growth at first by a strong, moist heat; and if the plant is carelessly forwarded from the nursery, and is not kept growing in similar conditions, its whole system receives a paralyzing effect, from which it is long in recovering. The advantage of a box in preference to a pot is, that the roots are not exposed to such sudden alternations of heat and cold, dryness and moisture.

History.—Found by Dr. E. Wallich, on exposed places on the hills of Sylhet and Nepaul, and there producing its corymbs of flowers at the points of the shoots, according to locality, nearly all the year. As it requires fully 50° to open its bloom freely, we cannot have it in bloom in the winter if the temperature is long below that.

Propagation.—I have tried old shoots cut up, and young shoots slipped off with a heel, when three inches in length, and the success was rather the greatest with the young shoots. In each case, the cuttings had the advantage of a moist hotbed, inserted in sand over sandy peat, and the young shoots here covered with a bell-glass, edged up a little on one side at night. As soon as struck, pot off in small pots, and keep in a moist heat, giving more air as the plant grows. Cuttings should all be inserted in spring, and, at least, before mid-summer. This is of importance, as affects the cuttings, and also because whatever *pruning* or stopping the plant receives should be done by June, at the furthest, that the

young shoots may be ripened enough to swell the flower-buds at this point before the end of autumn.

Soil.—Peat and loam, in equal quantities, with a little leaf-mould, and bits of charcoal, broken pots, and silver sand mixed with it, to keep it open, in addition to good drainage.

General Treatment.—Do everything to encourage growth at first. A moist heat, such as would suit Cucumbers and Melons, will just suit it for a short time. The flower corymbs will not be large until the plant is two or three years old. Supposing that growth was commenced in the early spring month, the moisture in the atmosphere must be discontinued after midsummer, and air given more liberally, the leaves fully exposed to sunshine under glass. By the end of August, unobstructed light will ripen the buds, but the pot must be protected from the rays of the sun. When thus hardened, it will keep very well in a temperature of 45° , but if the flower-buds are swelling and opening it will require 10° more. The difficulty of managing it in a cool, common greenhouse, arises not from the fact of the cold for short periods in winter, so much as from the low temperature in spring, and very likely the shade necessary for other plants in summer, which operates against the growth and ripening of the young wood sufficiently early. The plant which thrives so well in the conservatory, at Turnham Green, has a great amount of light all the summer. Spring suns will also raise the temperature considerably, and the roots that are in the bed of earth are saved from many extremes.

DAPHNE ODORA.

"FLORA shortened these according to *rule*, in July, to make them bushy, and though there were plenty of young shoots, there is not a trace of a bloom-bud. How are they to be produced for this winter and spring?" That is more than I can tell. I would advise keeping them cool in winter, but green, and turn them out early next summer, and most likely all the points of the shoots will be furnished with buds for the winter of 1856 and the spring of 1857. After that, give what stopping and pruning the plants want in April and May, or earlier, if the plants have bloomed earlier. Let them stand a few days—a week or so—in greenhouse temperature, then place them in a moist heat, to encourage growth; when growing, shift into loam and peat, the greater part being loam; place again in a close, humid atmosphere; by the end of July admit more air, and, by-and-by, expose the plants fully to the sun, without even the intervention of glass; and thus every shoot almost will be provided with flower-buds. House in good time in October.

"AN ARDENT ADMIRER" wishes the outlines of the culture of the following, all of which I think have already been given.

AOTUS GRACILLIMA.

Propagation.—Cuttings root freely from March to June, in sand, under a bell-glass.

Soil.—Sandy fibry loam and peat, well drained.

Prune rather close in when the plant has done blooming. Keep the plant in a closeish warm end of the greenhouse, or in a pit, until the young shoots are a couple of inches long, when examining of the drainage, and repotting again, if necessary, may be done. Replace in similar position, until the roots and tops are again growing freely, then gradually give more air. Expose the plant freely to the sun in the autumn months, but protect the pot from the strong rays. Syringe frequently, when the shoots are breaking and growing; water carefully with soft water. Little, comparatively, will be wanted in winter, and the temperature from fire-heat may average about 45° , with a rise of from 8° to 15° from sunshine.

PODOLOBIUM TRILOBATUM.

The chief difficulty in growing this plant, and all others with the termination *lobium*, consists in keeping the soil neither in a dry nor a sodden state about the roots, and in that state which may be called neither wet nor dry, in winter. These circumstances are best secured by good drainage. A pot not over large, and good, fibry peat, with nearly an equal portion of charcoal bits, broken pots, and silver sand incorporated with it.

Propagate by seed sown in a hotbed, or by firmish young shoots inserted in sand, under a bell-glass, in May, and kept in a cool place. These may remain in the cutting-pots, or be placed three in a small pot until the following spring, when they may be potted singly. Plants of this kind, or a plant brought in, or a plant pruned in a little after flowering, should be kept in a close end of the greenhouse, or a cold pit near the glass, to encourage growth; should have more air gradually given; and have as much light as possible by August. Let the pot be screened by the sun, as the roots are very sensitive; be freely supplied with water, when growing, and less towards autumn, and often syringed over head in the mornings and evenings, when breaking and growing; obtain a good place in the greenhouse by the 1st of October; be carefully watered during winter. Kept in double pots, such as it may have had in summer, stuffed with moss between, and that moss kept moistish, would prevent the necessity of watering the soil often; and a temperature from 40° to 48° at night, taking care that a cold frosty air does not blow over it before it has been softened and warmed, will be found the chief essentials to success.

BORONIA SERRULATA.

This, and the others referred to, "have been kept in a cool greenhouse; the leaves of *Serrulata* are falling and looking yellow." In the thirteenth volume will be found a good article on this plant, by Mr. Appleby; and in the eighth volume, No. 194, is another article on the same subject. This is one of the very nicest plants, but requires great care. A defect in drainage, a cold, rich soil, too much water about the roots, and too much dryness, and too low a temperature, either in winter or spring, will produce the evils complained of. Hence the plant has hardly a fair chance in a cool greenhouse. In a common greenhouse it will have a better chance, as in spring, after blooming, it could be placed at the closest and warmest end, with no air but from the top of the house, and more air and exposure given afterwards. A draught of cold air is disliked at any time. Failing this ability to keep it close in the spring and early summer months in the greenhouse, a pit or frame, with the suitable conditions, or a Vinery, or Peach-house, at work, would be the suitable place for it. By August and September it will require an opener position, to ripen the wood, and the more quickly the wood was forced into growth, the better chance will it have to be perfectly ripened, and, consequently, the less will it suffer from cold in winter, though even then it should seldom be below 45° , and would like as well if it were near 50° . A great many New Holland plants, though hardy enough for our greenhouse in winter, must have the advantage of a warmer climate as soon as they have finished flowering, to perfect their growth, and get it ripened more quickly. When growing, the plants must be shaded from bright sunshine. The finest-looking plants I ever saw were growing in a temperature that would have suited Orchids almost. These, when duly hardened off, would, no doubt, bloom freely; but such plants, galloped so fast into growth, seldom survive long, unless great care is taken of them. Next to the matter of temperature, is that of soil and watering. The drainage

should be very perfect. The compost should chiefly be fibry peat, kept open with pieces of broken charcoal, broken pots, from which the dust must be excluded, and silver sand—these three articles amounting to fully the quantity of peat. In watering, a good deal will be required when growing freely; less should be given as the wood approaches maturity; and, when wanted in winter, it should be given in the forenoon of a sunny day, if possible, and as much as will moisten every root. This will not be much wanted, if the plant does not stand in a draught or near the heating medium. The water should be soft, and, at least, not below 50° in winter. I would prefer it to be 5° to 10° warmer. I have seen fine plants formed soon on the large shift principle, when there was abundance of heat at command, and a thorough knowledge of the mode of watering under such circumstances, so as to prevent souring the unappropriated soil; but beginners had better content themselves with slower growth and small shifts, and most likely their plants will be longer-lived. Intending purchasers had better select a nice, green plant, in a three or four-inch pot, in April; such as they may shift and encourage to grow in a week or so after receiving it.

BRUGMANSIA KNIGHTII.

"The plant has been had two years, and cannot be made to produce a bloom." From cuttings struck one summer, I have had good flowering plants the next. I cannot conceive why it has not flowered, if it is strong enough, and has received good, rich treatment. Like all the others, it blooms most profusely towards the points of strong shoots of the current season's growth, and far on in the autumn and winter, too, if enough of heat is given. As the flowers are very large and double, they require a warm greenhouse, to open freely in the winter months. I have had some good flowers, out-of-doors, in warm autumns. I treat it exactly the same as the other Brugmansias, thus;—Keep it from frost in winter; allow it to become nearly deciduous; prune back in spring; allow as many buds to remain as you want shoots; encourage growth, by increase of temperature, if convenient; repot into rich loam; keep in pots, or, rather, plant out in a border, when gradually hardened off, and raise and pot early in the autumn. I have had several successions of bloom on the same plant in one season.

R. FISH.

WINCHESTER BOTANIC NURSERY AND PROMENADE.—This has been established by the good taste and enterprise of a very old contributor to our volumes, Mr. W. Savage. A subscription of one guinea will admit all the members of a family, from sunrise to sunset, daily, from the 1st of January to the 31st of December; and every subscriber will be entitled to select plants, &c., to half the amount of subscription. The gardens are well stocked with plants, both indigenous and exotic, in every department of Horticulture, and are all correctly labeled. The situation is a gentle slope to the south, commanding extensive views of the vale of the Itchen. The gravel walks are of considerable extent and ample width, and, being based on chalk, are dry in all weathers. On the lawn, a great variety of *Junipers* have been planted, and appear in good condition, especially *J. macrocarpa*, a free-growing variety, giving out, when rubbed, a grateful, balsamic odour; *J. Virginiana*, *J. Carolina*, *J. Phœnicea*, *J. thurifera*, *J. Chinensis*, *J. recurva*; also many sorts of drooping trees, which promise a fine effect; a good stock of *Taxodiums*, *Cypresses*, *Abios*, and *Cryptomeria*, well adapted for lawn decoration. In the Houses, are many plants worthy of notice.

NEW, OR GOOD BEDDING-PLANTS.

(Continued from page 88.)

VARIEGATED GERANIUMS.

This class of Geraniums enters largely into the bedding-out system, and very deservedly so. They are valued chiefly for their white and green leaves; that is, green leaves edged with white. That circumstance renders them attractive even when not in flower. They form a handsome bed by themselves, and are also effective as an edging round some other plants, more especially the dwarfier kinds. They also are useful in the ribbon style of border, contrasting well with yellow *Calceolarias*, and dwarf blue *Lobelias*. The following are what I have seen growing in all the methods mentioned above:—

BRILLIANT.—A very distinct, and rather new, good variety, with dark green foliage, below the medium size, distinctly bordered with white, though narrower than *Mountain of Light*. Flowers dark, rich scarlet, produced in large trusses. It is a free-blooming and late-flowering variety, in proof of which I may mention that it is now (Nov. 7) in full flower here. It should be planted-out in pots, in a poor, sandy soil. In rich borders it not only grows too rampant, but also often loses its variegation. It is best grown in masses, and is then very showy.

DANDY.—This is the true *Pelargonium Grossulariaefolia variegata*. It is by no means new, for I have cultivated it above twenty years. It is a small, compact plant, with light green, small foliage, every leaf distinctly margined with white. It makes a nice, small plant, suitable for the tiny pots, amongst other very dwarf, small plants, in what is called "baby gardens." Its use in bedding is either to fill a very small bed, or as an edging close to the turf. Flowers small, and of a pink colour. I have seen it used very effectively to fill a small bed, such as are left round a single standard Rose-tree. Every cutting will grow if put in in spring. A moderate-sized plant will yield many cuttings; therefore, whoever possesses one plant now, may rest assured that he may have scores in early spring, by taking off the smallest cuttings in February, planting them in sand, and placing them in a gentle heat. They quickly root, and should then be potted off into the smallest-sized pots. These will be the very best plants for an edging.

GOLDEN CHAIN.—Wherever the ribbon style of growing flowers is adopted, this is indispensable for the front margin of the ribbon of flowers. It has light green foliage, broadly margined with golden-yellow. The flowers are poor, but that is of no consequence. Wherever I have seen it grown, the flowers have been cut off, the golden-edged leaves being its great beauty; hence, it is scarcely ever used to fill a bed by itself. Many complain that it is difficult to propagate, but I do not find it so. I scarcely lose a single cutting. I take them off very short, insert them in sand, and place the cutting-pots in the stove, shading them only for a few days, and they root without any difficulty. I put them in any time from March to September, and am equally successful through the intervening months. The best way, however, to get a great stock, is to plant out in spring as many plants as you have, and allow them to grow freely; then, about the last week in July, take off every cutting, dig a piece of ground in the open garden, mix the uppermost two inches with sharp sand, and plant the cuttings in it. No further care is necessary, no watering, no shading. About the first week in September, ninety cuttings out of a hundred will be rooted well, and will be nice, little, stubby plants. Then take them up carefully, pot them into small pots, place them in a cold frame, shading them for a fortnight, giving them but little water. Then expose them

every day to the full sun, and, finally, put them into a dry, airy greenhouse, close to the glass, just giving sufficient water only to keep them from flagging. I saw this method of propagating and managing the *Golden Chain* Geranium carried out to perfection by my friend Mr. Aiton, gardener to the Earl of Stamford and Warrington, at Enville Hall, and everybody else may be equally successful, if they will follow the same plan.

FLOWER OF THE DAY.—No one can deny that this is one of the very best variegated Geraniums for filling a large bed. Little did Mr. Kinghorn, gardener to the Earl of Kilmory, at Twickenham, think what a boon he gave the flower-gardening world when he raised this useful and fine variety. It has a strong habit, and, therefore, should be grown in poor, sandy soil. In such a soil its variegation is much finer, and it flowers more freely. Foliage light green, broadly margined with white. Flowers bright cherry, produced in large trusses. Nothing can exceed the beauty of a large bed of this charming variety, and it is equally beautiful in the third or fourth row of a ribbon of flowers. To add to its merit, it is as easily propagated as a *Tom Thumb*; but the most ready and certain way is to take off a great quantity of cuttings, as many as may be required, or rather more, at the same time as the *Golden Chain*, plant them in the same situation, and manage them afterwards precisely similarly. Almost every cutting is sure to grow.

LADY COTTENHAM.—A variety very little known, yet it is a desirable one where there is space for, or a great variety desirable. Foliage pale green, broadly margined with yellow. Flowers rosy-pink, produced in large trusses, which stand up well above the foliage. The leaves are not quite so fine a colour at the margin as the *Golden Chain*, but the flowers are much superior; hence, it is suitable to bed-out in masses. Propagation the same as *Flower of the Day*.

LADY COVENTRY.—This is the same as *Mangles's Silver Bedding*. Foliage very dense, dark green, edged with silvery white. Flowers a clear pink, small both in truss and pip, but produced very abundantly, especially in poor loam. It is an old variety, but a very good one. Propagated easily any way, either in pots or in an open border. Sometimes a shoot will produce leaves quite green. These ought to be cut off directly they appear. The habit is rather straggling; therefore, it ought to be closely stopped-in when young, to form bushy plants by the time it is required for planting-out.

LADY PLYMOUTH.—Botanists call this *Pelargonium capitatum variegatum*. Foliage very much divided, and beautifully and regularly edged with white. Flowers in small heads, and of a lilac colour. It is worthless for its flowers; its beauty lies in its neat, compact, dwarf habit, and constant variegation. It is a very neat pot-plant for the greenhouse, and is well suited for small beds, and for edgings to beds of bright-coloured flowers, with green foliage. The leaves are sweet-scented; it is, in fact, the variegated Rose-leaf Geranium; by Rose-leaf is meant Rose-scented.

LATERIPES ALBA-MARGINATA.—The variegated Ivy-leaf Geranium. This is a new candidate for bedding-out, though it is an old plant. Foliage small, and inclined to the enp-shape, edged with a clear line of bright white. Flowers small, but of a pleasing, rosy-pink hue, veined with purplish-crimson on the upper petals. Habit very dwarf, and a profuse bloomer. It requires a light, rich soil, well-drained, and, as it throws out long lateral shoots, it should be planted thinly. Its trailing habit renders it unfit for the ribbon style, unless constant attention is given to stopping the rambling shoots. Like all the Ivy-leaf tribe, it is a good plant for a basket, or to train up a pillar, or against a wall. It is easily propagated in pots, in sand, placed in a gentle

heat, a moderate stove, for instance. In a dung hotbed it is too apt to damp off.

MOUNTAIN OF LIGHT.—There was a great demand for this variety last spring, chiefly, I believe, because I told, in *THE COTTAGE GARDENER*, last autumn, how well it bloomed, and how beautiful it looked at Enville Hall. It is, I must confess, of a delicate constitution, and, therefore, requires nursing tenderly to get it to flower well. At Enville Hall, it was growing in a large bed raised considerably above the level of the ground; hence, the roots were in a dry soil, which checked excessive growth, and caused a great abundance of bloom.

Foliage bright green, with a broad margin of pure silvery-white. Flowers in medium-sized trusses. Colour a brilliant scarlet; no other scarlet Geranium surpasses this gem in colour. Unfortunately, I cannot deny that it has a tender constitution, and requires peculiar care to grow it well. The soil should be sandy, and a large portion of well-decomposed leaf-mould mixed with it. The site of the bed should be a sheltered one, and it should be well drained to a considerable depth, so that no stagnant water in the rainiest season should lodge near the roots.

It is rather difficult to propagate, too, but short, hardened cuttings are the best. I have succeeded pretty well, by putting single cuttings in small pots half-filled with light compost, and upon that an inch of pure sand, placing them in a propagating-house, near the glass, without ever shading them. Whether they will succeed out-of-doors, in the same way as the *Golden Chain*, I do not know; but next year I intend to try that plan.

SILVER KING.—A variety sent out, two years ago, by Messrs. Lee, of Hammersmith. It seems to combine the strong constitution of the *Flower of the Day* with the variegation and colour of *Mountain of Light*. Probably, an hybrid between the two. I have grown it more than a year in pots only, but have never seen it planted out. As far as I can judge, I believe it will prove a great improvement on its parents. Foliage bright green, margined very broadly with silvery-white. Flowers bright scarlet, in medium-sized trusses. Propagates easily in the ordinary way. It is a beautiful object when well grown, even in a pot.

The *oldest variegated Geranium*. I wish I had Mr. Beaton at my elbow, to tell me what species this old plant is. However, it has a good variegation, almost equal to any of the preceding, and is really worth growing in large gardens, it is so hardy, and propagates so easily. I believe very few growers of bedding-out plants know it. I see it in many cottage-windows growing profusely. Foliage rather small, dark green, and broadly margined with white. Flowers of a pink colour, rather small, but very numerous. I was so much pleased with it that I procured a few cuttings, and every one of them grew. I find it a good bedder, and can recommend it where there is space requiring a large number of varieties.

T. APPLEBY.

(To be continued.)

ON PREPARING NEW GROUND FOR CROPS.

It is somewhat fortunate that Nature lends such an accommodating hand to amend or improve our defective work; otherwise, there is much that is done in the gardening world which would form a sorry comparison with works of a mechanical kind, only the latter, not being assisted in the same way, the manipulation must be more complete. A builder erects a house, and a planter puts in a tree, and it is ten to one but the latter out-lives the former, and at the expiration of a couple of centuries,

the tree, if living, is, probably, the more important object; whereas, at the beginning, there was no comparison of the amount of labour required to each; but such is the all-important aid we receive from Nature, that however imperfectly we do our part, she kindly assists to remedy our omissions; at the same time, we are reminded that the better we do our part, and the more in season it is done, a proportionately increased benefit will accrue from natural causes. A plant carefully put into its place at the beginning of the growing-season, has every advantage in its favour, other things being also in accordance with that view. Many things else, as well as planting, require to be done at the right season. "Making hay while the sun shines" is an axiom which has a very extended application; but it is not my purpose here to dwell on that matter, but to point out certain things which are sometimes neglected at the "right season," because their necessity of being done then does not seem so apparent as some others; and one of the most common things to neglect at the right season, is the cultivation necessary for newly-broken up ground, or it might be newly-formed gardens, in places where tillage has not been carried on before.

In the first place, we will suppose a suburban amateur, anxious to commence gardening on his own account, finds a plot of ground at the back of his building all but useless. If the premises be new, probably there are heaps of stones, brick-bats, refuse mortar, shavings, slips of slate, and other odds and ends lying about, together with heaps of earth, or clay, dug out of the foundation of the building, and many other substances. A fence of some description we will suppose does exist, but the whole surface of the ground hardened, by carting or walking over, in such a manner as to have a very unpromising appearance in the way of producing anything useful; but, not to be disheartened by appearances, the persevering man of business sets about a reformation at once; but whether prudently, or not, remains to be seen.

Perseverance will overcome many difficulties; but when industry is well directed, the result is much sooner accomplished. Take, for instance, a piece of ground of a stiff, half-clayey nature, with large heaps of real impenetrable clay lying on the top, which, having been dug out of the cellars, or foundations, are laid there, and cannot well be put anywhere else. In this case, the best that can be done is to burn this clay on the spot, provided it can be done without the smoke creating a greater annoyance than ought to be; for, be it here understood, the burning of clay is an operation that must be going on for some weeks, but the smoke, though continuous, is not so offensive as that from most other substances; and, on a clayey soil, burnt clay is, perhaps, the best of all fertilisers, as its anti-adhesive qualities suit exactly to keep the other open; and the burning of clay is neither a laborious nor an expensive affair, only it is right here to observe, that it is better done in the country than in towns. In the former place there is often the grubbed-up roots of trees, and other things to assist in the work, which are not so plentiful about town; but, supposing it is determined to try it, the best way is to smooth a place for the hearth, and if it is tolerably hard, dig a small ditch across it, and another at right angles to that, crossing each other in the middle. This ditch need not be more than three inches wide, and as many deep, and ought to be covered over with brick, or stone, not too closely placed together; and in the centre, where these four drains meet, a good pile of rough stones, or brick-bats, will be necessary, the object being to have a current of air to feed the fire in the centre. A fire of any rough materials may now be made on these stones; and as some combustible materials or other must be used rather liberally, it is better to have a tolerably

good fire before the clay is put on; and when that is begun with, the pieces must be rather lumpy, and free from small dirt, and laid on by hand; a little at a time will do, but the process must be repeated every day, or nearly so, adding layers of wood, or coal, with the clay, and, eventually, you may lay the clay on in spadefuls, but do not, by any means, meddle with the burning mass. This operation, it is needless to say, is best done in summer; but it is also done in winter, at times, only at a greater sacrifice of fuel. This, however, we must leave with the proprietor. When the mass is well burnt, there is no difficulty in understanding how to use it; at the same time, it ought not to prevent other things being used also. Lime is an excellent substance for stiff land; and if the amateur determines on not burning his clay, which may be objectionable so near dwelling-houses, lime is the best substance to fertilise it; and a good dressing of that, with such things as wood-ashes, soot, old mortar rubbish, chipping of stones, or bricks, or, in fact, anything of any opposite nature to the binding clay, will be servicable in making the ground available to the purposes of cultivation.

Now, though all these operations may be performed very quickly, the clay burning excepted, the purposes of Nature are not so easily served. "Time" is necessary to convert long sealed-up loam into good, fertile mould, and the object of the cultivator ought to be to have this work done so as to have it all in readiness by the proper planting-time, by which is meant, that work of this kind ought to be done so that the ground may have been exposed to all the changes of the weather for some weeks prior to the spring, when it is supposed that the usual crops will be put in. For this purpose, therefore, the trenching of such ground ought to be all done early in the autumn, and the surface left as rough as possible during the winter, and once or twice during the winter it ought to have a good digging over so as to expose another portion of it to the action of the air. The trenching being accomplished in the usual way, at least two feet deep, and if there is any difference in the material worked up, it would be better to work as much of the lighter or more open substance into the bottom, keeping the stiffer portion at the top, into which may be worked lime, or other things, at any time. This is on the supposition that the ground is of that stiff, retentive character, called, in plain language, a "clayey soil."

A light, sandy, or gravelly soil must be tilled equally deep, only a different description of material must be used to mix with it, clay, loam, or any adhesive material that is to be had, and liberal allowances of dung at times, while, as before stated, the work must be performed some weeks before the ground has to be planted; for, like everything else, this soil is equally barren when denied free access to the air; and though it is not likely to have been so completely shut out from it as the clayey soil alluded to, still it requires a certain time to sweeten and obtain those gasses on which the welfare of vegetation depends. This renders it necessary to prepare such ground as long before the time it is wanted as possible, as the best of soils will become barren by being denied access to the fresh air. I well remember, some years ago, seeing a good example in point. Some old buildings were taken down to make room for some garden alterations, and, in the course of operations, a Box-edging was planted in some fine-looking, dry earth that had laid underneath the barn-floor, for, perhaps, a century. The nice, mellow appearance of this soil led to its being used for the purpose of planting the Box in; the other ground, or, rather, earth, being exceedingly rough and unkindly (as the local phrase would have it). Well, this Box was planted, but not an inch of it grew, save where it was planted in mould that had been in some way or other exposed to the air; thus proving, at

once, that there must be a sort of preparation for every soil, and the more so where materials have to be used that have been completely shut out from the genial influence of the atmosphere.

This teaches us the necessity of hastening on with any new work of that kind early in the autumn, in order that as long a period as possible may elapse before the ground is wanted for cropping. Winter, though not the best time for mellowing ground, is still useful that way, and an ordinary winter is better than a wet summer; but a long period of dry weather is the best for that purpose, the dry, east winds, so prevalent in spring, being almost as beneficial as the scorching sun of Midsummer; but then, these are seasons when every portion of the ground ought to be under crop, or nearly so; whereas, in winter, there is very little progress in vegetation, and the mellowing influence of frost is very beneficial as a fertiliser. It is, therefore, advisable for all parties intending alterations, either in making new gardens, or renovating old ones, to do so as early in the winter as possible, and all trenching, or other work which disturbs the ground to a greater depth than usual, ought also to be done at the same early period, in order that the renovating influence of frost may give that fertility to the ground which it is in vain to look for in artificial means; and as "time" is the all-important agent for working such things, we may as well look for a crop of ripened corn the day after it is sown, as expect that "one day" will convert the "long-concealed" soil, or under stratum, into good, fertile mould. "Time," which not all our go-a-head engineering can conquer, still reigns supremely master in both cases. Our duty is, therefore, to arrange our work so as to give full effect to the services of that never-ceasing agent.

J. ROBSON.

DIOSCOREA JAPONICA, OR CHINESE SWEET POTATO.

CARLOS.—Those plants do not seem to grow at all, although they were planted in very good stuff. I think we had better put a frame over them.

AMICUS.—So do I, if you mean to do any good with them. They are very miserable-looking, although so strongly recommended to the attention of cultivators, for the purpose of supplanting that truly useful vegetable the Potato. Mrs. Glasse's recommendation was to catch the hare first, and to cook it afterwards. I think it may be applied to this case, as the growers must needs get the produce before they can cook it.

PATER.—I see it is run down in one of our leading periodicals, by a gardener who has been trying to grow it, but has been unsuccessful. He complains that his plants make no growth, and seems to think they are too tender for the climate. We may come to the same conclusion, for as soon as a shoot is formed it is cut off by the wind.

Such were the opinions expressed by three different individuals, who had spent the greater portions of their lives in the study and cultivation of vegetable productions, when looking at some plants of *Dioscorea*, which had been nursed and taken much care of until the commencement of last May, when they were turned out in a bed of light, rich soil, carefully prepared, and well sheltered; in fact, surrounded by hedges, and well exposed to the sun.

Under such favourable circumstances, it was but reasonable to suppose that a good result would have been produced, after the powerful recommendations which were offered with it to the public, the more particularly as the locality was well chosen, and the compost in which the plants were put was composed of the best and most proper ingredients for plant nutrition, and a full and fair development of foliage. Its application, in this particular case, has, however, proved a complete failure, as well as an inevitable waste.

The Vegetable Marrow and Cucumber plants growing in the same row, and planted in the same materials, had each

one of them covered yards of surface with most vigorous foliage, and a corresponding amount of produce; whilst this new Chinese Potato looked as miserable as it was possible for starving vegetation to look, and had scarcely formed a perfect leaf since they were turned out, and the little weedy shoots proceeding from them were not much larger than straws. It is truly disheartening to see such a poor reward for so great an amount of skill and labour as has been expended in endeavouring to carry out the theories propounded in extolling this plant. I might say, prematurely so, as a season's experience would have proved to us there was no probability of their ever being realized, and justice demands that John Bull's liberality should be better protected for the future.

It seems a pity that this good-natured gentleman should display such a predisposition to be deceived, and become the ready dupe of new-fangled theories. Who does not recollect the "Waterloo Caesarian Cow Cabbage" bubble? One head of which was to be sufficient to feed ten oxen, or 100 sheep, for a whole day; to produce the largest quantity of milk, the finest beef, the best of mutton, and the most silk-like wool? Well, our good-natured friend took that in, and was done for by it. Then there was the "Minimised plant scheme," which was considered a "capital take," and to which his wife and children were victimised; and, although an endless variety of other schemes and artful dodges have been practised and played off at his expense, this came in as the wonder of the season, and has proved, to the mortification of many, to be nothing more than a "bubble." It behoves our friend to make up his mind that he will not be such an easy dupe for the future, and that he will be more of an Englishman.

Many years' experience has accustomed some of our more prudent friends to the means which are resorted to for the introduction of new vegetables to public attention, and the more the ostensible merits of such objects are magnified, the more are they inclined to wonder that their applicability to the purposes for which they are recommended was never known before, and should have thrust themselves so fully on any particular person's attention so simultaneously. These worthies have been the more astonished this season, as so many well-known and respected individuals have deceived themselves and others in putting this article forward as the *sine qua non* for general cultivation. The continental recommendations have been copied, which, though replete with plausibility, have not rendered the plant susceptible of cultivation in a general way here. There is no probability of its ever resisting the windiness of the climate, however hardy it may ultimately prove; but if ever we do succeed with it, I am predisposed to think it will not be without the assistance of a frame, or some similar contrivance. The growth of all the plants which come under my notice has been so weak, that no appearance of tubers has been visible at the axils of the leaves, nor do the shoots give any evidence of there ever being any. I think we had better continue to cultivate some of the better varieties of our well-tried, though much afflicted friend, *Solanum tuberosum*, until we can get a better substitute than this new Chinese introduction.—C. B. S., Jersey.

GERANIUM HENDERSONII AS A BEDDING PLANT.

IN Mr. Beaton's late critical review of the flower-gardens at Kew and the Crystal Palace, he states, we have not yet a *white* Geranium of the Scarlet section, of sufficient merit to share a campaign with their red-jacket brethren against the numerous invasions to which the modern flower-garden is constantly exposed. With your permission, I solicit a little space in your valuable journal, trusting the following brief observations may not be unacceptable to your numerous readers.

During the last three years, I have enlisted four of this *pale faced* section, all of which had superior recommendations as fit subjects to defend the position they should be called upon to hold. Now, I would not willingly infringe upon the celestial law of charity so far as to injure the reputation of these worthies; but, as we all have a public duty to perform, I am bound to speak the truth; therefore,

with this object in view, I beg to publish their names, viz., *Boule de Neige*, *Skellonii*, *Miss E. Field*, and *Hendersonii*. The first engagement served to convince me that I should have to dismiss three of them. *Boule de Neige* would not obey orders; *Skellonii* not up to the mark, consequently *blushed*, and retired; *Miss E. Field*, I found not constituted for the position I designed her to occupy, but, as she appeared rather a fascinating person, I assigned her a position in-doors, which I think will be more congenial to her nature. The only hope I had left was centered in *Hendersonii*. I found some traits in his character that induced me to retain him; and last year I placed him with the commander-in-chief to defend a certain position, which he did so well, that I felt necessitated to place him in the same again this year. I am happy to say he acquitted himself as honourably as he did the preceding one; he was always at his post, and he appeared very ambitious to equal, if not to excel, the excellent qualities of the commander; but, of course, he kept him under his thumb.

As I have spoken a word in his behalf, I must also point out his defects, or public justice will not be satisfied. In this respect, I am sorry to say, he is like his neighbours, not without his faults. In the first place, he is something of an epicure in his way (if we can call this a fault). I feel persuaded Harry Moore has not sufficient ability to be *cuisinier* to him, nor do I think he requires the genius of a Soyer; but, in order to make him assume a bold front, he must be provided with good, plain food. I may also mention he is a temperance person (I do not mean a teetotaller). I certainly fancy he wants a new suit, as his dress, when *closely* examined, presents what the florist would term rather a narrow flimsy appearance; but for all that, at a little distance, he presents a very creditable front, and, under present circumstances, I cannot dismiss him.—S. ARNEY, *Saling Grove*.

VERBENA LAYERS.—ROSE CUTTINGS.

HAVING noticed, in the last volume of THE COTTAGE GARDENER of August 15, No. 307, Mr. Beaton's plan for propagating Verbenas, I beg to say, I have now tried the plan two years, and have succeeded quite well with those I laid down. Some I propagated from cuttings, to see which would make the best plants by the time I had them housed; but I find those from layers far exceed the others. I think it is the quickest and safest plan to adopt, because, in cuttings, you cannot always depend on their striking. Also, if a person has not much room to store a sufficient stock of plants away for the spring, he can lay a few dozens, or what he can conveniently store; then he will have good plants to take cuttings from in the spring.

Also, in the same volume, October 3rd, No. 314, I noticed Mr. Beaton's plan of striking Rose-cuttings. I set to work at once; I inserted some soft tiles edgeways, about three inches deep; I then inserted my cuttings, so that the side of the cutting came against the tiles. I covered them over with litter of straw, to protect them from the severity of the winter. In April, I had them uncovered, and, to my great satisfaction, I found them with shoots two-thirds-of-an-inch long. I have them now three feet high, good, bushy plants.

I recommend those who have not tried the plan, if they want to get some good training Roses, to begin at once.—J. S.

STORING SCARLET GERANIUMS.

It is said, ladies like their own way; but let me add, gentlemen do not differ from them in this. I have found the noblest heart, and the most grovelling, I have come in contact with, each like to have its own way, and gardeners, certainly, are no exception to the rule. But one ought hardly to expect such a difference of opinion amongst horticultural leaders, in the nineteenth century, about the treatment of common Scarlet Geraniums, which, with a little mould and old broken dishes, hundreds of old women have grown admirably!

Supposing that every available piece of Scarlet Geranium that can be spared, up to the middle of August, was struck

in the ground in an airy, exposed situation, and that it is desirable to preserve the old plants also; now, instead of cutting them close in, before being placed in their winter quarters, as I have frequently seen practised in first-rate places, and where the greater part have damped off in November and December, I would not allow, if possible, the smallest shoot to be injured. I would also be as particular in not leaving a leaf on them larger than a shilling; and, in place of potting them, I prefer forming temporary stages, shelves, or, you may call them beds, the length and width, of course, ruled by circumstances. I use wattled-hurdles for the bottoms; any piece of board, four to six inches in depth, will do for the sides; and by nailing a few narrow pieces of wood across will keep them together; I fill them with a mixture of leaf-mould and burnt earth, but any light mould will do. The principal object to attend to is to guard against damp in November and December. I give them no water until January, and then very sparingly. If anything in the shape of mould appears on them, I dust them with a mixture of lime, soot, and dry earth. On no account put a knife on them till the middle or end of March, without you can give them artificial heat. You must be very sparing of water, even with heat, till you get them fairly started.

I found, one year, that my engagements would take me away from home in March and April, and the weather being very fine about the end of February, I set to work, and had a large quantity cut to pieces, and replaced in as comfortable quarters as I could wish. Away I went, and did not return till three weeks afterwards. In the meantime we had wet, stormy, and snowy weather, and, to make matters worse, my man watered the Geraniums without giving them fire-heat, the consequence was, I lost, at least, two-thirds of them—a pretty practical lesson for me.

It is a good plan to tie the old Geraniums up in moss, with a little mould enclosed, and to hang them up anywhere you can find room, where you can give them air and keep the frost from them. With those that have fire-heat at command it is a very different affair; but, fire or no fire, I certainly would not cut them down at this season. Besides, if treated as I recommend, they take up less room, and produce stronger and a much greater quantity of cuttings in the spring.

The mildness of the season induces me to send you the above, being in the belief there is still a large quantity that are standing out, which, if the above treatment is practised, can be secured with little trouble and expense.—D. FERGUSON, *Stowe, Buckingham*.

SOWING COUVE TRONCHUDA.

THIS is a most excellent vegetable. I think it the best of the Cabbage tribe, and deserving a place in not only every gentleman's, but in every poor man's, garden, if planted in the proper time. In all seedsman's lists it is said—"Sow in August, and treat as Cauliflowers;" but, for my own part, I prefer sowing early in spring, and then, about the latter end of October or beginning of November, I get good cabbages. As the frost gets stronger, this cabbage gets sweeter, and the size of the leaf-ribs make it still more valuable, as they do not waste so much as ordinary cabbages do in boiling.

It may be served up in two ways, boiled as a common cabbage, or as a good substitute for Sea-kale. Cut the cabbage, and then, with a knife, remove all the leafy part, and leave only the large ribs of the leaf. Boil, and serve up as Sea-kale, and very few people would know the difference, *after the frost has been on it*. You may always have it three weeks or a month before you can Sea-kale.

I think anything that comes in at this season of the year, that is really good, is most valuable, as the general run of vegetables is getting short now; and this, I can safely say, is a really good vegetable, having grown it now three years.

When I first came to Norfolk, I went to see several gardeners, but they did not even know what it was like, having only seen the name in the seed lists. I have sent some to table in the early part of November, and it has been remarked—"What beautiful Sea-kale; and how early, too!" Upon being told it was not Sea-kale, the guests said—"It is even better than the real Sea-kale."

Those who sow it as usually directed have been disappointed in the end, as it has come in at the time when there has been plenty of other sorts, and at that season of the year that it could not be eaten as Sea-kale, as having a flavour too strong of the cabbage.—S. TAYLOR, *Oxborough, Norfolk.*

TO PREVENT INSECTS CLIMBING UP FRUIT-TREES.

LET a piece of India-rubber be burnt over a gallipot, into which it will gradually drop, in the condition of a thick viscid juice, which state it will retain for any length of time. Having melted the India-rubber, let a piece of cord, or worsted, be smeared with it, and then tied several times round the trunk of the tree. The melted substance is so very sticky, that the insects will be prevented, and generally captured in their attempts to pass over it. About three-pennyworth of India-rubber is sufficient for the protection of twenty ordinary-sized fruit-trees.—C. P. C.

QUERIES AND ANSWERS.

GARDENING.

HOT-WATER NOT CIRCULATING.

"I am sorry to see your correspondent, 'T. D.,' in trouble about his hot-water apparatus (*COTTAGE GARDENER*, p. 94). Having been in the same dilemma myself, possibly what happened to me may have happened also to him. In taking to pieces the pipes, to find the obstruction, I discovered that in caulking the joint the putty had been actually driven in until it had met, so as to prevent the water going by it. The pipe had to be cut to make it the proper length, consequently, the bead that would have stopped the putty was cut off.—I. S. E., *Stroud.*"

GROWING CUCUMBERS AND MELONS TOGETHER.

"I have, for some years, been a not unsuccessful grower of Cucumbers and Melons in dung-pits, but I have always understood that the two plants require a somewhat different management, namely, that the moist atmosphere the Cucumber thrives and delights in, would be injurious to the Melon; and it has been considerations of this kind that have mainly deterred me from putting up a span-roofed house, of moderate dimensions, for the growth of both under one roof, and under the same conditions as to heat, atmospheric moisture, and so forth.

"Now, in your this week's number, you say, in speaking of the span-roofed house described by your correspondent, 'A Beginner,' 'such a house would be the very place for Cucumbers and Melons.'

"Am I, then, wrong? and will Melons and Cucumbers do well together?—that is (supposing a walk down the middle), occupying the opposite sides of the same structure.—AN OLD SUBSCRIBER."

[You are right in supposing that Cucumbers and Melons require a little difference in treatment; but that, as respects the Melon, is chiefly at two periods—first, when the Melon is in bloom and setting; and secondly, when it is swelling and ripening its fruit. In the article referred to, one end is spoken of as being devoted to Cucumbers; and this is what we would recommend you to do; and to secure unity of expression and variety, as well as relative fitness, we should keep one end to Cucumbers, and one to Melons; and it would be all the better if there was a glass division between them. Both plants can then easily be managed upon a trellis, and be seen from below. Both will require very similar treatment, as respects temperature and atmospheric moisture—except at the times specified, when it is easy to keep the atmosphere of the Melons dry, by emptying the evaporating pans, &c. For getting perfect, good-flavoured Melons, we lay great stress on having even the surfaces of the soil dry as the fruit approaches maturity; but if, with pipes beneath, you allowed all the soil to become dry, that would hurt the plants. In such a case as yours, we recom-

mend small pipes, reaching to the bottom of the soil, or rather to the drainage below it, and the other end standing above the top of the soil; and in these pipes, we recommend pouring in the requisite quantity of water to keep the roots moist enough while the surface soil is dry. A bit of sponge fastened on a stick, and that set in one of these pipes, with the sponge resting on the bottom, would always let you know the state of moisture at the bottom. Small earthenware pipes would do.]

HEATING AND GLAZING A GREENHOUSE.

"Being about to erect a greenhouse on the ridge and furrow system, I propose to ask a few questions, knowing, at the same time, you are always ready to give all the information you possibly can. In the first place, I must describe to you the situation.

"The proposed place to erect the greenhouse is an open space, bounded on the west side by a greenhouse, now standing, with a back shed behind. On the east side is a billiard-room, occupying the same length of space; the north end looks into the farm-yard, where, at present, is a high wall; and the south end fronts into the flower-garden, parallel with the front of the greenhouse now standing. The length, from north to south, is twenty-seven feet in width; from east to west, eighteen feet; the height to the top of the ridge is twelve feet, and the height under the furrow about nine feet. The end looking into the farm-yard is to be glazed with Hartley's Patent rough plate glass, paying attention to ventilation. It is proposed to have a shelf two feet wide at the north end, and a pathway all round, three feet wide with a stage in the centre. It is to be heated on the hot-water system, by running the pipes round at the foot of the stage; the flue from the boiler will run across the north end, under the pathway. Whether would you advise, two rows of 3-inch pipes, or one row of 4-inch, to command a heat of from 45° to 50° in severe weather? Likewise, whether would you advise glazing the roof with Hartley's Patent rough plate, or clear sheet?—T. S."

[We would rather have the double row of 3-inch pipes, or even of 4-inch. The first expense will often save a deal of trouble afterwards. We would prefer Hartley's Patent for the roof, though rough plate, and also sheet will do; but the first is the best of the kind; that needs no shading, and admits enough of light. Any shaded or rough glass would do for the north end. We presume the object is to keep out the view of the farm-yard. We wish you much joy of the house, and you seem to have thought of everything right. We presume, that the south side will be crown glass in front, to enable you to see and be seen from the flower-garden. We paid a hasty visit to the Cambridge Botanic Garden this summer. The present new houses are built in the form of a square, or nearly so—enclosing an open court in the centre—where stock-holes, pits, and frames, and reserve ground are situated. As the glass on the sides of the houses next this square is all rough plate, a stranger might take the round of these houses, and never know of this useful interior court, so completely is it concealed.]

WINTERING GERANIUMS.—SIDES OF AN ICE-HOUSE.

"I have an offer of 2000 *Tom Thumbs*, and having seen Mr. Beaton's account of saving them, in last week's paper, I am anxious to try the plan; but he does not say what heat the cellar should be, and if they should be kept in the dark, or if a warm shed would do. I can do either. I also want your advice on the following:—I have a small place, with plenty of light, facing the south, boarded, and well covered. I thought of putting the bedding-out plants which I have taken up into it. I can keep it warm by two means, gas, or hot-water; that is to say, I have a large boiler outside, with a tap coming into the place; I could unscrew the tap, and put on any required length of inch piping, or even three-inch. The gas is laid on. Which would you prefer? and do you think the place would do for the purpose? It is a washing-up place for glass and china in the summer.

"The next query is as follows:—I erected, during the frost of this year, an Ice-house; it is eighteen feet long, and

twelve feet deep, and is vaulted top and bottom; the door is at one end. It has two lobbies before the double door of the house is opened; the walls are a brick-and-a-half thick, in cement; between the two walls, they being double, except the top, I placed in a lot of *bog* earth, that had been subjected to the action of the sea; my motive was, that, it being an antiseptic, and, as you recommend ice to be kept as warm and dry as possible, I thought it a good plan. Have I done wrong? Ought I to have left the space free between the two walls? The thickness of clay, well puddled over the arch, is about two feet. Is that enough? I ask this, as it has not answered so well as I expected; although I have but 14 lb. of ice left this year; next year I shall want it to last better.—G. W."

[Mr. Beaton will probably be reverting to the subject. See what Mr. Fish also says in a late number. Any place will do for the Geraniums, where you can maintain dryness, and exclude frost—from 35° to 45° would do well; and, provided these conditions are secured, the more light you have the better.]

Your washing-up place will do nicely for the purpose; and, as you have hot-water, we would advise screwing on two or three-inch pipes forthwith. These are just the places which ought to be made the most of. Of course, you will secure means for giving fresh air.

We have not tried bog earth as you have done, and steeped in sea-water, between the walls of an ice-house. We should prefer that the space had been empty; but we should like the opinion of others. Have you secured a drain with a trap in the bottom of your well? Two feet will not be enough over the top, unless you cover it with litter or vegetation in a rank state.]

CHEAPEST MODE OF WARMING A GREENHOUSE.

"Will you please inform me the best and cheapest mode to warm a greenhouse, eighteen feet long, seven feet deep, and about eight feet high. I do not want to build a fire-place, but merely something to keep out the frost. I have been recommended one of Joyce's stoves, with patent fuel; also to fill one or two large stone bottles with hot-water. Which, or what, do you advise?—T. I. F."

[A small, brick stove, similar to those used by Mr. Rivers and also as used by Mr. Lane, in his long hanging-house, would suit you; but you must have an opening for the smoke to go out through the wall, with a funnel or flue, shorter or longer, as convenient.]

If you use an iron one, get one with the outside iron—a good space from the fire—and depend upon no stove that has not a funnel or chimney, of some sort to take out the smoke. Did you not object to a stock-hole and furnace outside, we would recommend a small flue underneath your floor.

If you can lay on gas, you might heat a small tin, or copper boiler, and from that take tin or galvanised iron pipes. The large water bottles would do, if you had plenty of them, but they would be troublesome, unless you also covered your house.]

TROPÆOLUM MACROPHYLLUM.—FICARIA VERNA, AND MANDEVILLEA SUAVEOLENS PRUNING.

"*Tropæolum macrophyllum*, mentioned by "P. G." in No. 366 of THE COTTAGE GARDENER, is not put down in any nurseryman's list of bulbs, nor in *The Cottage Gardeners' Dictionary*. Does it go by any other name?

"*Ficaria verna*. When should this be planted? and where likely to be procured?

"Should *Mandevillea suaveolens* be cut down to the ground every season, in a conservatory?—ANNIE."

[The *Tropæolum macrophyllum* is *T. pentaphyllum*, several times highly recommended by Mr. Fish. We thought, at the time, that our correspondent had made a mistake.]

Ficaria verna may be planted in the autumn, or just as it begins to peep through the ground in spring, then lift the tubers carefully. It is best under the shade of trees, and is generally found most plentifully on shady hedge-banks.

Mandevillea should not be cut down; but the young shoots

should be pruned back to within a few buds of the older wood. See a notice, some time ago, of the plant at Stockwood, by Mr. Fish. The plant consists of one long shoot, some forty feet in length, or so, is trained longitudinally along the house, and spurs are placed some eight or twelve inches apart, and from these there is a dense mass of white blossoms every year. The plant is pruned in much the same as a Vine, and washed, to keep it clean every winter. There can be no question that that is a capital plan.]

HARDINESS OF GLADIOLI.

"As it seems to me that all the gardening books are very much at fault on the above-mentioned matter, I wish to add my experience to that of your "Eton College" correspondent, in this week's number. I have tried these corms for two years running, *entirely without success*. In 1853-4, I planted in the open border, and in pots under cold frame; and in 1854-5, in pots under cold frame, and in pots set on shelves in a tolerable stable, kept dry until the end of February; and in every instance the corms rotted without starting. The kinds planted were, *Cardinalis*, *Floribundus*, *Gandavensis*, *Psittacinus*, *Viridarium*, *Queen Victoria*, and some others. Your recommendation, neither to plant separately nor to disturb the patches of bulbs, unfortunately, avail nothing to the amateur, who is compelled to buy in a separated and dried condition.—A. C., *Chelmsford*."

[Buy all the kinds in the market, at the end of October, and plant three bulbs of each kind in 6-inch or 32-pots, and in light, sandy loam; give no water till the leaves are an inch long, in a cold frame; when the pots are full of roots, in April plant the balls entire, where you intend the bed to be; let the top of the ball be two inches below the surface, and never disturb them after that: nor let much frost nor too much wet get to them.]

BELGIAN DAISIES.

"I wish to obtain a few really practical directions for growing these plants strongly, with large foliage and flowers; the new hybrids appear to be much more tender than the old varieties, and very liable to damp off, either potted or in the open ground.—A. C."

[To grow Belgian Daisies, you want a dry, warm situation, very rich, light soil, an open, airy situation, patience, good temper, and plenty of watering pots in summer, and sufficient leisure time to look strictly after them. The reason why Belgian Daisies, and all other Daisies, do so badly with some people is this—as soon as the Daisies are out of bloom they are allowed to take their chance for the rest of the season; but, being a highly artificial flower, so to speak, the Daisies ought to have as much care and attention, all the year round, as florists' *Auriculas*, *Anemones*, *Pinks* and *Tulips*. Our single Daisies love to creep along the surface, and to be well mulched in a living mantle of lawn grasses. We turn them double, make them tender, then expose them on a burning, bare surface all the year round, and they soon "go for it." From the first day in May, till the last in August, a row, or a bed of Daisies, ought to have a good watering just four times a week, or six times in very dry weather, and the soil to be stirred about them once in ten days, at least; but a better rule would be, "to stir up the Daisies" every time the grass was cut.]

WINTERING YOUNG PELARGONIUMS.—GRASS IN THE SHADE.—POMPONES.

"1stly, Of my young Pelargoniums rooted at the end of summer; generally, three-fourths of the number die off from November to January. They are well-rooted, in 60-sized pots, and carefully watered; but they have no sun for about forty days in the depth of winter, although it shines on the roof of the greenhouse, and I do not light a fire unless it is a frost. Sometimes the thermometer is 34° inside. The plants mostly go black from the root up the stem.

2ndly, Which is the best Grass to sow for borders where there is not much sun in winter, and which does not require much cutting in summer?

3rdly, Required, the names of a few Pomponé Chrysanthemums—the *earliest*, and equal to *Sacramento*.—J. R."

[Your's is a hopeless task, trying to winter young Pelargoniums in a greenhouse where the sun never shines for forty days in winter. Such a house is not suited for soft plants of any kind; in winter only for Oranges, Myrtles, and other hardy plants of the woody kinds. The roots of your young Pelargoniums perish with cold and damp, and the stems go black in consequence. 60-pots are the worst kind you could use in this house—32 or 24-pots, and twelve plants in one pot, on the store principle, would or ought to do better—as with them, one watering a month would keep the plants alive in winter, and the end of February would be time enough to single pot them. We are obliged to water the 60-pots so often that Salvias or Lobelias would suffer from it sooner or later.

A short, fine grass, that would grow or keep green in winter where the sun never reached it, and which would not require to be often cut in summer, is—like the evergreen climbing Rose, to bloom all the season, with a highly-scented and high coloured flower—yet to be discovered, or made on purpose; but a garden that would grow everything but weeds is a still greater want in these hard times.

You are too extravagant by one-half. Where do you suppose it possible to manufacture Pompones to be as early and as good as *Sacramento*? which is the best yellow Pomponé, but not the best for all purposes, for all that. Lower your desires, and we shall delight you on this subject very shortly.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

BIRMINGHAM. 11th to 14th of December. Sec., J. Morgan, jun., Esq. Entries close November 10th.

DURHAM AND NORTH YORKSHIRE, at Darlington, 6th and 7th of December. Sec., J. Hodgson, Esq. Entries close November 19th.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. Sec. R. Hawksley, jun., Esq., Southwell. Entries close November 20th.

SOUTH DURHAM AND NORTH RIDING OF YORKSHIRE. At Darlington, December 6th and 7th. Sec. Jno. Hodgson.

TAUNTON AND SOMERSET. Nov. 23rd and 24th. Sec. Wm. Buncombe, Esq., Taunton. Entries close November 3rd.

VALE OF AYLESBURY. January 2nd and 3rd. Secs. J. D. Muddiman, and Jas. Allen. Entries close December 20th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

CHANCES AGAINST WINNING.

As I looked out of my window, during the heavy rain on Thursday last, I saw a child, a girl, about eight years of age, glorying in the pelting shower, because she carried over her head that which had once been a parasol, but was now the wreck of one. I then saw a man go past clad in India-rubber vestments, wearing overshoes, and carrying a right good umbrella, yet his countenance spoke nought but discontent; and I said to myself—An illustration of exhibitors at Birmingham. A poor man will show a pen of fowls that has cost him labour, and the sweat of his brow—that has been in his thoughts early and late, and a simple commendation will be to him the parasol of the child. Another will show birds, about which he knows little, save that they are his own, and although he may get a second, perhaps a first, prize, yet, because he misses the cup, he will be discontented. The loss of the cup to him will be the rain.

It is said that soldiers go into action with a firm belief that they will come out untouched, because only three per cent. are killed, and only seven per cent. wounded on an average, and they take it for granted they will not be of the number. Citizens remain in a city where there is the plague, on the same calculation.

Now, I think it will save much anxiety to many, if they will make a calculation about the numbers of exhibitors in each class at Birmingham. It is not uncommon to have nearly two hundred entries in a class. There are but three prizes. Let each exhibitor make up his mind he will not be one of the three, and if he is defeated he will not be vexed;

and if successful he will be the more pleased. Let all recollect how closely a pen must be scanned to be successful among so many, and it may be balm to a wounded spirit, in some instances.—SENEX.

BEDFORD ANNUAL POULTRY EXHIBITION.

ON Wednesday and Thursday, the 7th and 8th of November, this exhibition of Poultry was held in the Corn Exchange, High-street, Bedford. The building is, undoubtedly, very suitable for the purpose, being both well ventilated, and enjoying a perfect distribution of light throughout the whole. The exhibition coops here used were the newly-invented and "Registered Poultry Pen" of Mr. Joseph Cooke, of Colchester. They appear very well designed for showing the poultry distinctly, and not a single inch of room is wasted; therefore, in a confined space, they possess many advantages over those we are accustomed to meet with. They are "hired out" by the inventor at half-a-crown each.

The Bedford entries very considerably exceeded four hundred pens, the fowls being the property of most of our reputed breeders, and, had it not been from a misunderstanding between the exhibitors and managing committee, there would have been few shows of this season more truly promising of success. It appears, that at the first notice of holding this year's show, an announcement was printed, stating all the fowls must be at the show the day before the exhibition opened to the public; afterwards, it was notified, on the "entry papers," that all fowls must arrive on the 5th of November, being the Monday. This left Tuesday for the awarding of the premiums, and the show opened to the public (as originally announced) on the Wednesday.

However this may be, as the sequel proves, the discrepancy caused a great multiplicity of "too late" arrivals; and, by singular misfortune, most of these were from breeders whose repute in the leading varieties is everywhere notorious among our poultry amateurs. Among the parties whose fowls were thus excluded from competition altogether, and, therefore, from even the most remote chance of prize-taking, we especially noticed the names of Messrs. Plummer, Botham, Fellowes, Potter, and Buncombe. No doubt, others equally deserving were similarly situated, though unknown to our reporter. Suffice it, then, to say, *more than eighty pens* were thus excluded of fowls that have, on most occasions, rarely failed to fulfil the hopes of their owners.

It appears that Mr. Edward Hewitt, of Spark Brook, near Birmingham, who officiated as sole judge, was in waiting at half-past seven on the morning of the 6th inst., to commence his onerous duties. About this time the misunderstanding was discovered, and, therefore, from a desire to meet the wishes of the committee, and afford every possible chance for the arrival of poultry, that gentleman kindly consented to delay his adjudications until after the arrival of the two post meridian trains. From this cause, the conclusion of this thankless labour was not arrived at until a late hour; we had almost said an early one.

We, ourselves, very deeply regret that anything so likely to produce ill-feeling should have arisen; and the vexation was much heightened, in many instances, by the *obvious* superiority of numerous pens bearing the ill-fated card, "too late," over those closely adjoining, which, by the mischance thus offered, gloried in the honours of the day.

It is certainly the interest of all Poultry Show Committees to pay especial regard that their printed rules are not open to *any possible misconception*, and we unfeignedly hope, the dilemma of the Bedford committee will act as a direct and sufficient warning to projectors of such public exhibitions to carefully avoid any repetition elsewhere.

For the reasons above hinted, our following remarks are intended to apply, *generally*, to both the successful and disqualified pens; for it would be unjust to mark, individually, with undue praise, pens of poultry whose success rested entirely on the disqualifications arising from the *delay of arrival only* of their opponents. Throughout the whole collection there was scarcely an indifferent pen to be met with; many of the adults were naturally deep in the autumnal moult, so general at this season; but not a few of

the chicken were in the highest condition possible. As is of late almost invariably the case, the *Cochins* did not appear as advantageously as in former years; on the other hand, the *Spanish*, *Hamburghs*, *Dorkings*, *Game*, of all colours, and *Polands*, were very good. The *Sebright Bantams* were a poor muster for numbers, and though one or two good fowls were shown of this variety, the bulk were decidedly very indifferent specimens. The *Game* were very superior; the *Turkeys* good; the *Aylesbury Ducks* were unexceptionable, and the *Rouens* much better than usual. The greatest curiosity of the show was in the "extra class" for *Pigeons*, being a pair of birds, called *Wonga Wonga*, from Australia. They were very beautiful, in first-rate plumage, and exceedingly large, the markings quite different to anything hitherto exhibited. We were told they had bred in England, and that they and their pair of young ones were the only birds of this kind known to be in the United Kingdom.

Class 1.—**DORKING**.—Birds exceeding one year old.—11. First, Rev. James Boys, Biddenden, Cranbrook. 12. Second, Mrs. Fookes, Whitechurch, Blandford. Highly Commended.—7. Sir Williamson Booth, Bart., Woodbury Hall, Pottton. 10. George McCann, Graham House, Malvern. 13. James Frost, Parham, near Woodbridge. 16. Joseph Allison, Friar's Place, Acton. (A superior class.)

Class 2.—**DORKING**.—Chicken of 1855.—19. CUP.—Rev. James Boys, Biddenden, Cranbrook. 25. Second, W. Beleher, Abingdon. Highly Commended.—2. W. K. Breavington, Vicarage Farm, Hounslow. 5. Miss Steele Perkins, Sutton Coldfield, near Birmingham. 11. Sir Williamson Booth, Bart., Woodbury Park, Pottton. 14. Countess Sandwich, Hinchinbrook, Huntingdon. 33. Rev. Frederick Thursby, Abington Rectory, Northampton. 34. Robert Loder, The Beeches, Crawley. 37. William Wright, West Bank, Widnes, near Warrington. Commended.—4. Edward H. Strange, Amptill. 7. Daniel Harrison, Singleton Park, Kendal. 20. Rev. George Hustler, Appleton, Tadcaster. 21. Mrs. Fookes, Whitechurch, Blandford. 23. James Frost, Parham, near Woodbridge. 43. Joseph Smith, Henley-in-Arden. (An unusually good class.)

Class 3.—**DORKING**.—Cock, any age.—6. First, Rev. James Boys, Biddenden, Cranbrook. Highly Commended.—4. W. H. Denison, Hardwicke Cottage, Woburn.

Class 4.—**DORKING**.—Hen, any age.—14. First, William Wright, West Bank, Widnes, near Warrington. Highly Commended.—6. William Taylor, Amptill. Commended.—8. W. H. Denison, Hardwicke Cottage, Woburn. 12. Robert Loder, The Beeches, Crawley.

Class 5.—**SPANISH**.—Exceeding one year old.—5. First, Edward Simons, Birmingham. 11. Second, William Sanders, Egypt Cottage, Cowes. Highly Commended.—7. G. C. Adkins, West House, Edgbaston, Birmingham. Commended.—4. William Taylor, Amptill.

Class 6.—**SPANISH**.—Chicken of 1855.—5. First, John R. Rodbard, Aldwick Court, Langford, near Bristol. 10. Second, Matthew Ridgway, Dewsbury. Highly Commended.—1. Edward H. Strange, Amptill. 16. Joseph Allison, Friar's Place, Acton. Commended.—6. William Taylor, Amptill. 7. Edward Simons, Birmingham. 20. William Sanders, Egypt Cottage, Cowes. (A very meritorious class.)

Class 7.—**SPANISH**.—Cock, of any age.—2. First, John R. Rodbard, Aldwick Court, Langford, near Bristol. Commended.—1. W. K. Breavington, Vicarage Farm, Hounslow.

Class 8.—**GAME** (Black-breasted and other Reds).—Exceeding one year old.—7. First, William Dawson, Selby Oak. 6. Second, John R. Rodbard, Aldwick Court, Langford, near Bristol. Highly Commended.—2. Theed William Pearce, Bromham Road, Bedford. 4. Edward H. Strange, Amptill. 13. James Howard, Bedford. Commended.—8. G. C. Adkins, West House, Edgbaston, Birmingham.

Class 9.—**GAME** (Black-breasted and other Reds).—Chicken of 1855.—10. First, William Dawson, Selby Oak. 1. Second, Theed William Pearce, Bromham Road, Bedford. Highly Commended.—6. William Kingston, St. Mary's, Bedford. 11. James Brown, Hop Pole Inn, Birmingham. 15. John Percival, Clent Villa, Harborne, near Birmingham. Commended.—19. James Howard, Bedford. (A very good class.)

Class 10.—**GAME** (Any other variety).—Exceeding one year old.—6. First, Edward Farmer, Greet, Spark Brook, Birmingham. 1. Second, Theed William Pearce, Bromham Road, Bedford. (Duckwing.) Highly Commended.—7. John Mead, Aylesbury. (White.) Commended.—4. Edward H. Strange, Amptill. (Duckwing.)

Class 11.—**GAME** (Any other variety).—Chicken of 1855.—9. First, John Wright, Hulland Hall, Ashbourne. (Duckwing.) 5. Second, Edward H. Strange, Amptill. (Duckwing.) Highly Commended.—2. Theed William Pearce, Bromham Road, Bedford. (Duckwing.) Commended.—1. T. H. D. Bayly, Ickwell House, Biggleswade. (Pile Game.)

Class 12.—**GAME**.—Cock, any age or colour.—6. First, James Howard, Bedford. Highly Commended.—4. Daniel Harrison, Singleton Park, Kendal. (Black.) Commended.—5. John R. Rodbard, Aldwick Court, Langford, near Bristol. (Duckwing.) All the Game classes good.

Class 13.—**COCHIN-CHINA** (Cinnamon and Buff).—Exceeding one year old.—3. First, James Ivall, 96, Camden Road Villas. 2. Second, Harry Tomlinson, Balsall Heath Road, Birmingham. Highly Commended.—1. Rev. Edmund Luce, Amersham.

Class 14.—**COCHIN-CHINA** (Cinnamon and Buff).—Chicken of 1855.—1. First, James Ivall, 96, Camden Road Villas. 2. Second, Mrs. Fookes, Whitechurch, Blandford.

Class 15.—**COCHIN-CHINA** (Any other colour).—Exceeding one year old.—8. First, G. C. Adkins, West House, Edgbaston, Birmingham. (Partridge.) 6. Second, Robert Chase, Moseley Road, Birmingham. (White.)

Class 16.—**COCHIN-CHINA** (Any other colour).—Chicken of 1855.—7. First, Thomas Bridget, Croydon. 3. Second, John R. Rodbard, Aldwick Court, Langford, near Bristol. Highly Commended.—8. John K. Fowler, Prebendal Farm, Aylesbury. (White.) Commended.—5. Robert Chase, Moseley Road, Birmingham. (Very good class.)

Class 17.—**COCHIN-CHINA**.—Cock, any age or colour.—1. First, Robert Chase, Moseley Road, Birmingham.

Class 19.—**BAHMA POOTRA**.—Chicken of 1855.—11. First, I. F. Chater, Haverhill. 8. Second, Arthur Allison, Friar's Place, Acton. Highly Commended.—1. W. K. Breavington, Vicarage Farm, Hounslow. 6. Rev. John Richardson, William Rectory, Hitchin. Commended.—4. George Palmer, Lantern Hill, Aylesbury.

Class 20.—**HAMBURGH** (Gold-pencilled).—Exceeding one year old.—7. First, James Dixon, North Park, Horton, Bradford. 5. Second, William Taylor, Amptill. Highly Commended.—1. Frederick Weststead, The Cottage, Stonely, Kimbolton.

Class 21.—**HAMBURGH** (Gold-pencilled).—Chicken of 1855.—1. First, Rev. Henry Pearce, St. John's Rectory, Bedford. 3. Second, Daniel Harrison, Singleton Park, Kendal. Highly Commended.—7. Mrs. E. Whittaker, Henlow, Baldock. 11. William Wright, West Bank, Widnes, near Warrington. Commended.—4. Thomas McCann, Graham House, Malvern. 8. William Taylor, Amptill. (A superior class.)

Class 22.—**HAMBURGH** (Silver-pencilled).—Exceeding one year old.—5. First, James Dixon, North Park, Horton, Bradford. 1. Second, Francis A. Lavender, Biddenham.

Class 23.—**HAMBURGH** (Silver-pencilled).—Chicken of 1855.—6. First, Edward Archer, Malvern. 7. Second, William Taylor, Amptill. Highly Commended.—4. Francis Buckland, Wraisbury, near Staines. 9. Rev. T. B. Prior, Bennington Rectory, Stevenage.

Class 24.—**HAMBURGH** (Gold-spangled).—Exceeding one year old.—7. First, James Dixon, North Park, Horton, Bradford. 3. Second, William Dawson, Selby Oak. Highly Commended.—9. Joseph Conyers, jun., 42, Boar Lane, Leeds.

Class 25.—**HAMBURGH** (Gold-spangled).—Chicken of 1855.—12. First, James Dixon, North Park, Horton, Bradford. 10. Second, Josiah Bamforth, Holmfirth, near Huddersfield. Commended.—8. William Dawson, Selby Oak. 9. R. Lane, Edgbaston, near Birmingham. 11. Henry Thompson, Market Street, Windsor.

Class 26.—**HAMBURGH** (Silver-spangled).—Exceeding one year old.—5. CUP.—Josiah B. Chune, Green Bank, Coalbrookdale. 9. Second, James Dixon, North Park, Horton, Bradford. Highly Commended.—4. Charles Edward Coleridge, Eton College, Windsor. 8. Thomas Chamberlain, Thames Street, Windsor.

Class 27.—**HAMBURGH** (Silver-spangled).—Chicken of 1855.—16. First, James Dixon, North Park, Horton, Bradford. 7. Second, Josiah B. Chune, Green Bank, Coalbrookdale. Highly Commended.—2. Edward H. Strange, Amptill. 9. Mrs. Fookes, Whitechurch, Blandford. Commended.—5. Charles Edward Coleridge, Eton College, Windsor. 12. William Wright, West Bank, Widnes, near Warrington. 13. Josiah Bamforth, Holmfirth, near Huddersfield. (A very excellent class.)

Class 28.—**HAMBURGH**.—Cock, any age or colour.—2. First, William Taylor, Amptill. Highly Commended.—5. Rev. George Hustler, Appleton.

Class 29.—**POLANDS** (Golden).—3. First, Joseph Conyers, jun., 42, Boar Lane, Leeds. Commended.—1. Edward H. Strange, Amptill.

Class 30.—**POLANDS** (Silver).—4. First, G. C. Adkins, West House, Edgbaston, Birmingham. Highly Commended.—5. S. T. Baker, Manor House, King's Road, Chelsea. Commended.—1. W. K. Breavington, Hounslow. 3. Matthew Ridgway, Dewsbury. (An excellent class.)

Class 31.—**POLANDS** (Any other variety).—5. First, Joseph Conyers, jun., 42, Boar Lane, Leeds. (White Crested.) Commended.—1. Edward H. Strange, Amptill. (Black, White-crested.)

Class 32.—**BANTAMS** (Gold-laced).—1. First, T. H. D. Bayly, Ickwell House, near Biggleswade.

Class 34.—**BANTAMS** (Any other variety).—5. First, G. C. Adkins, West House, Edgbaston, Birmingham. (White.) Commended.—11. William Rowney, Fenlake. (White.)

Class 35.—**ANY OTHER DISTINCT BREED OF POULTRY**.—2. First, W. K. Breavington, Hounslow. (White Dorking.) 3. Second, Charles Edward Coleridge, Eton College, Windsor. (Black Hamburg.) Commended.—4. William Taylor, Amptill. (Black Hamburg.) 5. William Dawson, Hopton, Mirfield. (Serai Taook.) 8. William Rowney, Fenlake. (Silky.)

Class 36.—**DUCKS** (Aylesbury).—13. First, John Weston, Aylesbury. 14. Second, John K. Fowler, Prebendal Farm, Aylesbury. Highly Commended.—1. Theed William Pearce, Bromham Road, Bedford. 3. W. K. Breavington, Hounslow. 4. Theed William Pearce, Bromham Road, Bedford. (The whole class commended.)

Class 37.—**DUCKS** (Rouen).—1. First, Theed William Pearce, Bromham Road, Bedford. 4. Second, W. K. Breavington, Hounslow. Highly Commended.—12. John K. Fowler, Prebendal Farm, Aylesbury.

Class 38.—**DUCKS** (Any other variety).—6. First, Miss Steele Perkins, Sutton Coldfield, near Birmingham. (East Indian.) 10. Second, John K. Fowler, Prebendal Farm, Aylesbury. (Black Velvet.) Commended.—9. Rev. F. Morris, Gransden Rectory, Caxton. (Cumberland.) 11. Rev. W. M. Elwyn, Waresley Vicarage, Caxton. (Buenos Ayres.) 12. Rev. E. H. Kittoe, Chadwell Rectory, Grays. (Buenos Ayres.) 13.

William A. Warwick, Donryland Lodge, Colchester, (White Pervian Musk.)

Class 39.—GERSE.—5. First, John K. Fowler, Prebendal Farm, Aylesbury. 4. Second, W. H. Denison, Hardwicke Cottage, Woburn.

Class 40.—TURKEYS.—3. First, John R. Rodbard, Aldwick Court, Langford, Bristol. 1. Second, Lady Emily Isham, Lamport Hall, Northampton. Highly Commended.—2. Edward H. Strange, Ampthill.

Class 41.—PIGEONS (Pouters).—4. First, G. C. Adkins, Edgbaston, Birmingham. Highly Commended.—3. Francis A. Lavender, Biddenham.

Class 42.—PIGEONS (Runts).—4. First, S. T. Baker, Manor House, King's Road, Chelsea.

Class 43.—PIGEONS (Fantails).—5. First, G. C. Adkins, Edgbaston, Birmingham.

Class 44.—PIGEONS (Black Barbes).—2. First, G. C. Adkins, Edgbaston, Birmingham. Highly Commended.—3. Harrison Weir, 11, Lyndhurst Villas, Lyndhurst Road, Peckham.

Class 45.—PIGEONS (Pouters).—2. First, Francis A. Lavender, Biddenham. (Blue Pied.)

Class 46.—PIGEONS (Almond Tumblers).—2. First, G. C. Adkins, Edgbaston, Birmingham. Highly Commended.—3. John Percival, Clent Villa, Harborne, near Birmingham.

Class 47.—PIGEONS (Jacobins).—4. First, William Henry Simpson, Islington, Birmingham. (White.) Highly Commended.—3. John Bowen Burtt, Market Place, Kettering. (Yellow.) 5. G. C. Adkins, Edgbaston, Birmingham. 6. Harrison Weir, 11, Lyndhurst Villas, Lyndhurst Road, Peckham. (Yellow.) A very meritorious class.

Class 48.—PIGEONS (Any other variety).—13. First, Richard Emery, 6, King's Street, St. James's, London. (Wonga Wonga.) Highly Commended.—4. Francis A. Lavender, Biddenham. (White Owls.) 6. Francis A. Lavender, Biddenham. (Red Nuns.) 7. William Henry Simpson, Islington, Birmingham. (Frill Backs.) 8. William Henry Simpson, Islington, Birmingham. (Swallows.) 9. G. C. Adkins, Edgbaston, Birmingham. (Archangels.) 11. John Percival, Clent Villa, near Birmingham. (Black Swallow or Russian Maids.) Commended.—1. Francis A. Lavender, Biddenham. (Porcelain.) 2. Francis A. Lavender, Biddenham. (Yellow Magpie.) 5. Francis A. Lavender, Biddenham. (Red Helms.) 10. John Percival, Clent Villa, near Birmingham. (Frill Backs.) (A class of extraordinary merit.)

Class 49.—EXTRA STOCK.—Commended.—1. W. H. Denison, Hardwicke Cottage, Woburn. (Three Dorking Cockerels.)

The SILVER CUP for the best General Collection of Useful Poultry, was awarded to John R. Rodbard, Aldwick Court, Langford, near Bristol.

RULES FOR JUDGING POULTRY.

(Continued from page 119.)

On the *Dutch Pencilled Fowls*, or *Bolton Greys*, or, as we term them, *Pencilled Hamburgs*, we have little to say. We do not, however, look for a barred wing in these birds. The tail, according to our notions, should be black, shaded with bronze, for the golden cocks, and with silver for the silver. They should have no white ground, nor should they be dotted with black dots at the end of the feather.

We pass to the fowls with crests. Here the comb is described as a principal point. It is to be "rudimentary in two small spicula;" now this would disqualify the bird at any show in England. We are speaking of what we call the *Black Polands*.

Then we come to the great heresy of this class.

The *Spangled Hamburgs* should have, so says the paper, "a full globular floating crest, pure white, each feather pointed with black." This is, however, only a difference of names; that which is here called a *Hamburg* we call a *Poland*; and this name has been adopted throughout England at every show. The spicula of the comb are again insisted upon. The crest should be pure white, each feather tipped with black. We say, each feather of the crest should be laced; a white crest is here called a defect. Again, it is said, the back should have "the largest and most distinct black edging, according to the size of the feather, on purest white ground." Now this is, with us, the complaint at every show, that the spangled birds are becoming laced. A spangle is a moon, spot, or mark at the end of a feather; an edging is lacing such as is required in *Sebright Bantams*. If a prize is offered for spangled birds, it should not be awarded to lacing.

One only thing more I will notice, that "the beak of the Aylesbury Duck should be the narrowest." We like them broad.

There are many other points I could mention, wherein the points differ in the estimation of judges. I have, how-

ever, named enough to show how impossible it is to draw up printed rules by which judges should be bound.

Those drawn up by Mr. Williams show much care and considerable knowledge, and the attempt deserves the thanks of all interested in the question; but, in my opinion, he has undertaken that which cannot be accomplished. Judges cannot be made by books. I do not approve the wish to reinstate the Silver and Golden Polands among the *Hamburgs*. They have long ceased in England to be classed with them, and they should never have been there at all. It should be the wish of all parties to simplify the names of fowls as much as possible; and if these are *Hamburgs*, then we must have Black with white crests, *Chamois*, Black, White, and all the whole tribe.

Again, the *Pheasant Fowl* is no longer known. The name was founded on a false idea that the spangling was originally obtained by a cross with the pheasant.

I cannot help thinking the object in view would be better obtained by adopting the classification now used by all the shows in England, than by reverting to old-fashioned and exploded names. Those now in use are believed to be correct, and have been adopted after much careful work by the Committees.

I would not have it thought I infer that the judgment in this country must, of necessity, be better than that of another; but, as it seems well understood here, as it is believed to be correct, as the paper purports to seek to introduce "Uniformity" of judgment, I have not hesitated to point out where we differ, and, in some instances, why we differ.

I have had considerable poultry experience in every way; and, I am sure, few, if any of our best English judges, could act on the rules laid down.

I will only repeat, I admire the research and talent of Mr. Williams's paper, but cannot agree to his rules. I recommend him to come and have a look at Birmingham, and I am sure he will there receive the thanks of those who differ from him.—D.

POULTRY SALES.

The last Poultry Sale at Mr. Stevens', on Tuesday, the 6th, was very numerously attended, and the prices realized by really good birds of all varieties proved that first-rate stock will always command remunerative returns.

Among the birds sold were some exceedingly good coloured Dorking chicken, from Mr. Rider, several of which realized about £2 each. Mr. Fletcher, also, sent a number of Spanish chicken of very superior character; one cockerel sold for £3 15s., another for £2 2s. A very large *Cochin* cockerel, of Mr. Bridges, sold for £2 7s. A pair of *White Poland* chicken, of Mr. Tegetmeier, for £1 11s. The competition for good lots was keen and spirited, which was the more remarkable, from the fact, that at the previous sale there were scarcely any buyers; the inferior birds were few, and they certainly did not pay their expenses. One well-known breeder sent up what could only be regarded as the weedings of his stock, and the result, certainly, was not such as would encourage any one to repeat the experiment.

The general result of the sale was exceedingly encouraging; it proved that the desire to possess good fowls had not declined, and that really first-rate stock was by far the most remunerative.

The sale was concluded by a number of lots of the unsold stock of a still-born work on poultry, which was only remarkable for a number of tawdry ill-executed lithographs, nine-tenths of which were copied, without the slightest acknowledgment, from Weir's spirited drawings in "The Poultry Book."

THE HOUSEHOLD.

(We shall be much obliged by any of our readers sending us approved receipts in cookery, hints for household management, or any other domestic utilities, for insertion in this department of our columns.)

APPLES USED AS POULTRY.—It may not be generally known, but it is a common custom in many parts of Devon-

shire, and, I believe, Cornwall, to keep a peculiar sour Apple for the purpose of making poultices, to be used for festers, and reducing swellings, &c. I am not aware of the kind of Apple used in that part, it being many years since I saw it applied, but remembering it, I thought I would apply it to a very obstinate case, but mixed a small quantity of vinegar with the common Cat's Head Apple, which I had previously peeled, cored, and baked with a little water; this I found to answer the purpose admirably, and at the same time is not an unpleasant application. I have heard it stated, that in some parts of Poland, where the "Goitre" is common, that there is a wild, sour Crab Apple used for the same purpose to reduce the swelling.—G. W.

THE BEST WAY TO DRESS TOMATOES.—Cut them in slices, and place them in layers in a flat dish, with plenty of pepper and salt, and a little butter; cover them well with bread crumbs, and bake them in the oven till quite brown. They should be eaten with roast meat, and are very delicious.

APPLE CAKE.—Peel the Apples and slice them, and put on the fire, with as little water as will prevent them catching; when reduced to quite a pulp, pass through a sieve. To a quart of pulp add three-quarters-of-a-pound of loaf-sugar, but sour green Apples, which make the strongest and best (which mine are not), require a pound; add the peel and juice of half a lemon. Boil for an hour till it thickens, then put in a mould and turn out when cold. Serve custard round it, or cream.

A LIGHT PLAIN CAKE.—Six ounces of ground rice, the same of flour, the yolks and whites of nine eggs, beat separately, one pound of loaf-sugar finely pounded. Whisk the sugar and eggs for nearly an hour, then add the rice and flour; butter well some white paper, and put round and at the bottom of the tin it is to be baked it, and bake in a slow oven. No doubt it is generally known, that a good way of judging if a cake is done through is to run a knife through the middle, if it comes out *quite clean* it is baked enough.

AN INCOMPARABLE APPLE PUDDING.—Eight ounces of apples when grated; six or eight ounces of sugar; six ounces of butter; the juice and rind of a lemon grated; five eggs, leaving out two whites, the eggs to be well beaten, and the ingredients well mixed together; put a paste round the dish and bake it.—M. W.

RAINWATER TAPS.—Everyone has experienced the annoyance caused by water-taps which are exposed to the weather in winter. After being frozen a few times they leak constantly, and get an inclination to stick fast in certain positions. The evil is caused by the closed chamber which is formed by the plug of the tap when shut, which, being full of water, is expanded with irresistible force when the water freezes, and bulges out both the plug and the sides of the tap. This effect may be prevented, by drilling a hole through one of the cheeks of the plug, or right through both sides of the tap while it is shut, so that the water in the chamber may escape; but better still, by using what the plumbers term a "downright tap," that is, a tap constructed on the principle of the spigot and faucet, which delivers the liquid down through the bottom of the plug. These may be exposed to the weather twenty years without injury; and it would be well if ironmongers would keep this description of tap for waterbutts, &c. At present they are not easily procured.—LATIMER.

BEER STANDS.—One of my neighbours has occasion to put two barrels of beer into a small cupboard, under a staircase, in such a confined position, that it would be extremely difficult to lift the casks into their places. By putting castors to the legs of his stands, he is, however, enabled to roll them into their places with the greatest ease; and I am sure that castors would be a very useful addition to beer-stands in general. To prevent rusting, they should be of brass, and well oiled.—LATIMER.

WHITE SAUCE FOR POULTRY OR BOILED VEAL.—Mix three tablespoonfuls of flour in one pint of milk or cream, with a little salt, pepper, and nutmeg, and a slice or two of lemon; keep stirring till it boils, then take out the lemon, pour it over the fowl, or veal, and garnish with slices of lemon. This is also excellent to warm up poultry or veal in.—M. W.

THE BEST ONION SAUCE.—Take six moderate-sized onions, and boil them till quite soft, changing the water two or three times; then pass them through a sieve, add half-a-pint of milk or cream, two ounces of butter, a teacup full of crumbled bread, a little salt and nutmeg, and boil it for a minute or two. Flour may be used instead of bread, if preferred.—M. W.

LONDON MARKETS.—NOVEMBER 19TH.

COVENT GARDEN.

The supply of Fruits and Vegetables is well kept up, and prices remain about the same. A large quantity of hothouse Grapes still find their way to market and are in excellent order.

FRUIT.

Apples, kitchen, per bushel	2s. to 4s.
" dessert	4s. ,, 6s.
Pears	4s. ,, 8s.
Peaches, per doz.....	5s. ,, 8s.
Nectarines, per doz...	—
Plums, per sieve	4s. ,, 8s.
Pine-apples, per lb....	4s. ,, 6s.
Grapes, per lb.....	1s. ,, 6s.
Foreign Melons, each	2s. ,, 4s.
Figs	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 22s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts	—

VEGETABLES.

Cabbages, per doz. ..	9d. to 1s.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	2s. ,, 4s.
Brocoli	1s. ,, 2s.
Savoys	—
Greens, per dozen bunches	2s. ,, 3s.
Spinach, per sieve....	1s. ,, 2s.
Beans	—
French Beans, per half sieve	—
Scarlet Runners ..	1s. 6d. ,, 3s.

Peas, per bushel	3s. ,, 5s.
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz.....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Turnips, per bunch..	2d. ,, 3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s. 6d.
" Cabbage	6d. ,, 8d.
Endive, per score	1s. ,, 1s. 6d.
Celery, per bunch....	8d. ,, 1s.
Radishes, Turnip, per dozen bunches	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet.....	2d. ,, 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	—
Sea-kale, per punnet	—
Rhubarb, per bundle	—
Cucumbers, each	3d. ,, 8d.
Vegetable Marrow, per dozen	6d. ,, 1s.
Tomatoes, per punnet	1s. ,, 2s. 6d.
Mushrooms, per pottle	1s. 6d. ,, 2s.

HERBS.

Basil, per bunch	4d. to 6d.
Marjoram, per bunch	6d. ,, 9d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch ..	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch ..	2d. ,, 3d.
Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, NOV. 16.—The arrivals continue moderate, a few cargoes of Oats have got in, but the total supply does not exceed 8,440 quarters. This morning there is a firmness in the Wheat trade, and prices are 1s. in advance of Monday. Barley scarce, and 1s. higher. Oats sell more freely at 6d. advance. Beans and Peas of all sorts command very full prices. In Flour to-day there is no change from Wednesday, but quotations are well sustained.

WHEAT.

Kent and Essex, red, per qr.....	87s. to 89s.
Ditto, white	90s. ,, 96s.
Norfolk and Suffolk..	78s. ,, 80s.
Dantzic	92s. ,, 96s.
Rostock	81s. ,, 92s.
Odessa	73s. ,, 76s.
American	92s. ,, 96s.

BARLEY.

Malting	45s. to 49s.
Grinding and Distilling	41s. ,, 43s.
Chevalier	45s. ,, 49s.

OATS.

Scotch, feed	34s. to 36s.
English	26s. ,, 27s.
Irish	30s. ,, 32s.
Dutch Brqo	29s. ,, 30s.
Danish	30s. ,, 32s.
Russian	26s. ,, 29s.

BEANS.

Harrow	52s. to 56s.
Pigeon	54s. ,, 56s.
Tick.....	56s. ,, 58s.

PEAS.

Boiling, per qr.....	53s. to 56s.
Common.....	43s. ,, 45s.
Grey.....	48s. ,, 50s.
Maple	48s. ,, 50s.

SEEDS.

Turnip, White, per bushel	—
Swede	—
Rape	84s. ,, 86s.
Linseed, sowing, qr.	80s. ,, 84s.
" crushing ..	70s. ,, 72s.
Clover, English, redcwt	60s. ,, 68s.
" Foreign do.	52s. ,, 57s.
" White	68s. ,, 73s.
Trefoil.....	28s. ,, 32s.
Rye, per qr.....	52s. ,, 54s.
Tares	46s. ,, 52s.
Winter, bushel	8s. ,, 9s.
Canary, per qr.....	64s. ,, 72s.
Hemp	54s. ,, 57s.

Linseed Cake, per ton.....	£11 to £12 10s.
Rape Cake ..	£6 10s. ,, £6 15s.
Indian Corn	47s. ,, 50s.

HOPS.

BOROUGH MARKET, FRIDAY, NOV. 16.—There has been rather more business doing in our market during the last few days, and a considerable quantity of good, healthy, brown Hops have been purchased. Fine colour samples also continue in good demand, having already become somewhat scarce. Inferior sorts are a heavy sale. Weald of Kents, 60s. 8s. to 95s.; Sussex Pockets, 56s. 76s. to 90s.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.	Meadow Hay, new	95s. to 120s.
Clover, new	120s. ,, 135s.	Rowan	80s. ,, 90s.
Ditto, 2nd cut	90s. ,, 140s.	Straw, flail	30s. ,, 36s.
Meadow Hay	90s. ,, 130s.	Ditto, machine	28s. ,, 30s.

POTATO.

SOUTHWARK WATERSIDE, NOV. 12.—Since our last, prices have advanced, and we have a brisk trade at our quotations. We have no fresh arrivals to report. Kent and Essex Regents, 110s. to 120s.; ditto Shaws, 100s. to 105s.; York Regents, 110s. to 120s.; Lincolnshire Regents, 100s. to 110s.; Wisbeach and Cambridge Regents, 100s. to 115s. Bedford Regents, 100s. to 110s.; ditto Shaws, 95s. to 100s.; Norfolk Regents, 95s. 100s.; ditto Whites, 90s.; Scotch Regents (East Lothian), 100s. to 110s.; ditto (Red Mould), 100s. to 120s.; ditto (Perth and Fife), 100s. to 110s.; ditto (North Country), 100s.; Orkney Reds (East Lothian, nominal), 95s. to 100s.; ditto ditto (Red Mould, nominal), 100s.; Scotch Cups (Perth and Fife, nominal), 90s. to 95s.; ditto (North Country, nominal), 90s. to 95s.; Irish Kemps and Clusters, 85s. to 90s.; ditto White Rocks, 85s.; ditto common Whites, 80s. per ton.

MEAT.

Beef, inferior, per 8lbs.	3s. 4d. to 3s. 8d.	Mutton, middling 3s. 10d. to 4s. 4d.	
Do. middling	3s. 10d. to 4s.	Do. prime	4s. 6d. to 4s. 10d.
Do. prime	4s. 2d. to 4s. 4d.	Veal	3s. 10d. to 4s. 10d.
Mutton, inferior 3s. 4d. to 3s. 8d.		Pork, large	3s. 8d. to 4s.
		Ditto, small	4s. 4d. to 5s. 4d.

POULTRY.

There is still a great supply of Poultry, and a very small demand. Game is not so plentiful as it was supposed to be. During the past week there has been proof of much disease among the Grouse, numbers being reduced to skeletons.

Large Fowls	5s. to 6s. each.	Wild Duck	2s. to 2s. 6d. each.
Smaller do.	3s. to 3s. 6d.	Teal	8d. to 9d. ,,
Chicken	1s. 9d. to 2s. 3d. ,,	Woodcock	3s. to 3s. 6d. ,,
Geese	6s. to 7s. 6d. ,,	Snipe	1s. 3d. to 1s. 9d. ,,
Ducks	2s. 9d. to 3s. ,,	Larks, per doz. 1s. to 1s. 3d. ,,	
Pheasants	3s. to 3s. 3d. ,,	Rabbits	1s. 4d. to 1s. 5d. ,,
Partridges	1s. 9d. to 2s. 3d. ,,	Wild do.	10d. to 11d. ,,
Grouse	1s. 9d. to 2s. 6d. ,,	Turkeys	5s. to 8s. ,,
Hares	2s. 9d. to 3s. ,,		

PROVISIONS.

BUTTER.—Cwt.		CHEESE.—Cwt.	
Dorset, fine	104s. to 108s.	Cheshire, fine	74s. to 90s.
Do. middling	90s. ,, 96s.	Gloucestershire, dble. 70s. ,, 76s.	
Fresh, per doz. lbs. 12s. ,, 13s.		Ditto, single	60s. ,, 74s.
Friesland	103s. ,, 112s.	Somerset	70s. ,, 76s.
Kiel	94s. ,, 98s.	Wilt, loaf	63s. ,, 78s.
Carlow	102s. ,, 106s.	Ditto, double	72s. ,, 78s.
Waterford	98s. ,, 102s.	Ditto, thin	54s. ,, 64s.
Cork	98s. ,, 102s.	Ditto, pines	72s. ,, —
Limerick	100s. ,, 102s.	Berkeley, thin	62s. ,, 66s.
Sligo	94s. ,, 102s.		

BACON.—Cwt.		HAMS.—Cwt.	
Wiltshire, dried ..	80s. to 84s.	York, new	80s. to 90s.
Waterford	74s. ,, 76s.	Westmoreland	76s. ,, 86s.
		Irish	74s. ,, 84s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11½d, the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. the 4lb. loaf, while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. ,, 1s. 2d.
Ditto Tegs and		Leicester fleeces ..	1s. ,, 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.	11d. to 1s.
Half-bred Hog-		Combing skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool ..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

EDINBURGH.—Pray accept our best thanks, and we wish we knew your address, that we might tender them more specially. There is some selfishness in the wish, as we might be tempted to trespass further on your kindness. All your suggestions are good, and have been attended to.

GARDEN LABOURERS (*A Gardener*).—We do not think these, if paid weekly wages, and are not resident in the house, come within the tax on male servants any more than do farm labourers.

SEEDS AND PLANTS FOR NEW ZEALAND (*A Subscriber*).—Mr. Beaton is at present engaged on a commission for sending out trees, shrubs, &c., to Van Diemen's Land, to our old and highly valued correspondent, "A Country Curate." So soon as he has completed his commission, he will publish a list and particulars in our columns. They will apply fully as well to New Zealand.

PEACHES NOT RIPENING (*W. T. R.*).—Late, or, as they are termed, "October" Peaches, rarely ripen or attain any flavour on an open wall. Applying guano only tended to make matters worse, by prolonging the growing of the tree. A glass lean-to over late Peaches is the only mode of securing their ripening.

CUTTING BOX (*D. H.*).—You could not have looked at page 100.

RHUBARB-BED (*A Constant Reader, Kettering*).—If by "laying" your mean "dressing," then certainly no manure can be better than your night soil and gypsum. The soil cannot be too rich for any kitchen-garden crop from which leaves only are required.

FLAX (*Idem*).—The following is in answer to your query about Linseed. Get the land into fine tilth, by frequent ploughing, harrowing, and rolling. Sow two bushels per acre, broadcast, in April. It does well after Turnips. Clover does well sown with flax. Twenty bushels of seed, and a ton-and-three-quarters of undressed Flax straw, is a good crop. It should be well weeded.

TAMARISK FOR EDGINGS.—*M. P. L.* wishes to know where this can be obtained. We do not know.

DAISY ON LAWN (*A. B.*).—You can only destroy it by having it rooted out. A few women with an old knife will soon clear a large lawn.

HOPPERS IN HAMS.—*B. B.* wishes to know how these maggots can be kept away.

ORCHARD (*A Subscriber*).—Plant dwarf trees. As your soil is only six inches deep, you must plant on stations. We will enquire about a work on French Vineyard culture.

NAMES OF FERNS (*A Constant Reader*).—A small frond of *Polystichum lobatum*, alias *Aspidium lobatum*. (*T. G. W., Northampton.*)—Your place will suit all British Ferns. 1. *Polypodium vulgare*. 2. *Aspidium aculeatum*. 3. *Aspidium lobatum*. 5. *Blechnum boreale*. 6. *Aspidium Filix mas*.

NAMES OF PLANTS (*E. Billon Vicarage*).—*Cineraria maritima*, the Sea Ragwort. (*P. G.*).—Your *Tropaeolum macrophyllum* is *T. pentaphyllum*, sometimes called *Chymocarpus pentaphyllum*. (*R. S., a Subscriber*).—We believe yours is *Tropaeolum hybridum*.

NAMES OF APPLES (*J. L.*).—4. Bedfordshire Foundling. 35. Northern Greening. 38. Hoary Morning. 40. Hawthornden. 60. Golden Winter Pearmain. 63. Golden Winter Pearmain. 97. London Pippin.

BLACK HAMBURGS NOT COLOURING (*A Constant Reader*).—We presume that the want of colouring arose from planting so late, and taking too many bunches. In such circumstances, very few should have remained the first year. In fact, you would have been likely to have had a fair crop, better coloured, by allowing them to remain in the boxes. The check of planting caused the Vines to lose time, and the first thing to suffer was colour. Had you let all your bunches stay, you would, most likely, had shanking too. Do not be too greedy next season, and the Vines will right themselves. Your borders seem right. We have known Vines produce fine red Hamburgs one year, and better black ones the next.

CARP BREEDING.—Information on the above subject will much oblige *A Correspondent*. In a large piece of water, with a deep, sandy, mud bottom, in a chalk county, the Carp grow to a large size, but as young Carp are never seen, they are supposed not to breed. Occasionally, some are found so very full of spawn, as to be mis-shapen and inactive. They appear not to have strength or power to throw their spawn, and upon examination, after being killed, there are often three distinct portions of spawn enclosed in separate membranes, all of the same size; some eggs very much discoloured; others in a healthy state, giving the appearance of spawn of three separate years, of full growth. Some fish are very poor, others in fine colour and condition, and very fat within. The water is very clear and cold. Any information as to the Carp not breeding as freely as Pike and other fish will be thankfully received.

PYRACANTHAS (*A. C.*).—"Will these shrubs bloom and fruit on a north wall, entirely shaded from sun? and can Musk Roses (climbers) be made to bloom well in the same situation?" They never will, nor can. How could Musk Roses be dwarfed down for low walls? Give them head-room enough, and the aspect is not of so much consequence, nor for the Pyracanthas.

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WEEKLY CALENDAR.

D M	D W	NOV. 27—DEC. 3, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
27	Tu	Oak leafless.	29.702—29.371	49—42	S.W.	24	40 a 7	56 a 3	6 45	18	12 18	331
28	W	Elm leafless.	29.199—28.990	50—29	W.	06	41	55	7 58	19	11 58	332
29	Th	Song Thrush sings again.	29.516—29.123	51—37	W.	22	42	54	9 11	20	11 37	333
30	F	St. Andrew.	29.730—29.422	51—30	W.	—	44	53	10 24	21	11 16	334
1	S	Tachyporus chrysomelinus.	29.951—29.768	46—34	N.W.	—	46	53	11 a 35	22	10 54	335
2	SUN	ADVENT SUNDAY.	29.937—29.762	50—40	N.W.	—	47	52	morn.	23	10 31	336
3	M	Anobium tessellatum.	30.025—29.894	50—38	W.	—	48	52	0 44	24	10 7	337

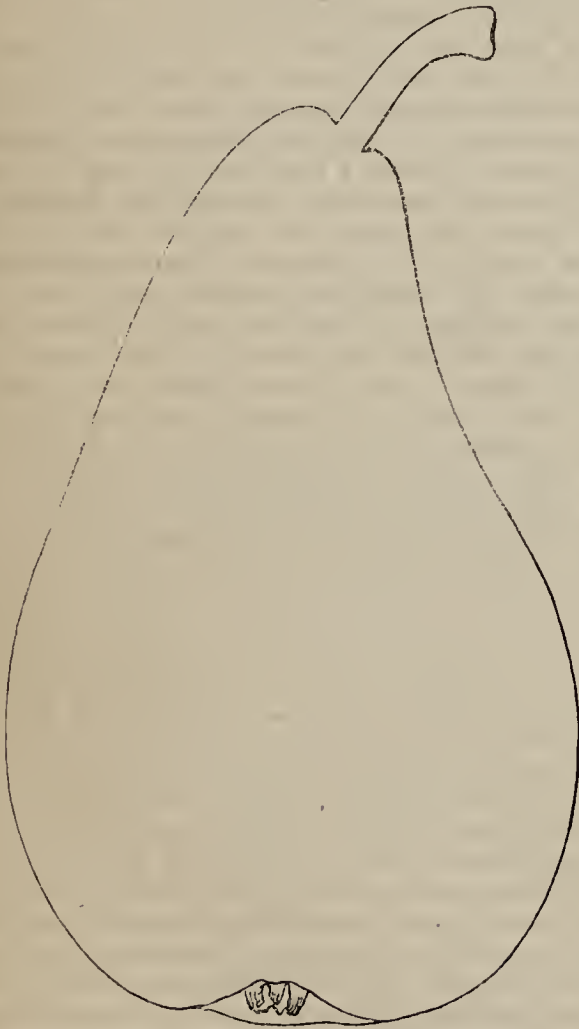
METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 47.7°, and 35.7°, respectively. The greatest heat, 60°, occurred on the 28th, in 1828; and the lowest cold, 16°, on the 29th, in 1846. During the period 101 days were fine, and on 95 rain fell.

THE FRUITS AND FRUIT-TREES OF GREAT
BRITAIN.

NO. VII.

LOUISE BONNE D'AVRANCHES PEAR.

SYNONYMES.—Louise Bonne d'Avranches, *Duval Hist. Poir*, 60. Bonne Louise D'Avranches, *Bravy Arb. Fruit*, 52. Bergamotte d'Avranches, *Dubreuil Cours*, 577. Louise Bonne of Jersey, *Hort. Soc. Cat.* ed. 3. n. 299. Bonne de Longueval, *Bavay Cat.* Poire de Jersey, *Ibid.* Bonne Louise d'Arandoré, *Acc. Hort. Soc. Cat.* William the Fourth, *Ibid.*



THERE are some fruits that *may* be grown, and others that *ought* to be grown, in every collection; of the former we could enumerate a considerable list, but of the latter the range is very limited. Even of those which ought to be grown, there are very many for which our soil and climate is, generally speaking, unsuitable, and it is only in favoured spots that they can be brought to anything approaching perfection. But the Pear we have chosen

to illustrate in our present number is one of those which, from its great excellence, and the freedom with which it accommodates itself to almost all soils and situations in this country, is worthy of a place in every garden. We have seen it in the warm, genial soil of Devonshire, and in the more exposed regions of some parts of Scotland; in light loam and stiff clay, we have seen it equally healthy and luxuriant.

The fruit varies in size from three-inches-and-a-quarter to three-inches-and-three-quarters long, and from two-inches-and-a-quarter to two-inches-and-a-half wide at the thickest part. Its shape is pyriform; the greatest diameter is at two-thirds of its length, from which it is rounded towards the apex, and tapers gradually towards the stalk, and generally more swollen on one side than the other. The skin is smooth, green at first, with dull red on the side next the sun, and marked with large, russetty specks; but as it ripens, the green becomes yellow, and the red crimson; the russetty spots are encircled with a crimson ring, and the surface is smooth and shining. The eye is small and open, with long, erect, linear segments, placed in a rather deep and round basin. Stalk from three-quarters to an inch long, obliquely inserted on a level with the surface of the fruit, and generally surrounded with a patch of thin delicate russet. Flesh white, buttery, and melting, with a rich, sugary, and brisk vinous flavour. Ripens in October.

The tree is healthy and vigorous, assuming a handsome pyramidal shape; the wood is of a greenish-brown colour; and the young shoots are powdered in their early growth. It blooms profusely, and, in situations where they are not injured by spring frosts, is an abundant bearer. It succeeds well either on the Pear or Quince stock, but when cultivated in heavy soils and cold situations, it is much more healthy, and produces finer fruit on the Quince than on the Pear. We have observed, in the nursery of Mr. Rivers, of Sawbridgeworth, where there is a plantation of upwards of 2,000 trees of this variety, all grafted on the Quince, that trees which have thrown out roots above the graft, and are, therefore, uninfluenced by the Quince, although they exhibit a more luxuriant growth, have the leaves spotted and unhealthy, the shoots cankered, and the fruit small and few in number; while those that are wholly under the influence of the Quince produce short, firm, well-ripened wood, and an abundance of large, handsome, and highly-

coloured fruit of most delicious and piquant flavour. In warm, light, loamy soils, it succeeds well on the Pear stock; but in such as are cold and heavy it should always be grown upon the Quince. We have seen it, in Cheshire and in Herefordshire, produce, from standards, abundant crops of highly-flavoured and handsome fruit on the Pear; and as far north as Edinburgh, we have seen it cultivated against walls, and produce, in such situations, fruit equal in size and flavour to any grown in the south.

This very valuable Pear was raised at Avranches, about the year 1788, by M. Longueval, who, at first, named it simply "Louise," but, subsequently, added "Bonne." The original tree is still in existence in the garden where it was raised, now in the occupation of M. Leclerc, Rue St. Germain, at Avranches. The name by which it is known over the whole of the Continent is that which we have thought proper to retain in our present notice; but that by which it has passed in this country, and which is a misnomer, originated from the circumstance, that on the first introduction of the tree to the Horticultural Society from Jersey, it was received under the name of "Louise Bonne," and to distinguish it from the old Louise Bonne of Duhamel and others, it was called "Louise Bonne of Jersey."

LONDON HORTICULTURAL SOCIETY'S MEETING.

NOVEMBER 20TH, 1855.

THIS was the first meeting, in Regent Street, after the long vacation, and since the public announcement of the money difficulties of the Society, and the sale of their Orchids; therefore, it may have been the spirit of curiosity, to see or hear how things went on, which prompted part of the visitors to meet that day; and others might have thought their presence would strengthen and encourage the Society, and so braved the weather. However that may be, this was the largest November meeting of the Society in my time, and the largest exhibition of flowers and fruits, particularly the latter, which the Society ever had in London in any month in the year. I had expected, as if I were still in Suffolk, to find the Society short of hands, from the rumours that some of the officials were discharged to lessen the expenses; but nothing of that kind has yet been done, save the parting with the Orchids; nor will anything further be attempted till next February or March, when a general meeting of the more influential of the country members, then in town, will be held, to consider on the best steps to be taken for the future movements of the body; therefore, like the allied armies abroad, we have only to take care of ourselves this winter, at least, and wait the results of the next movement with patience and resignation.

The Pomological Society seem to have made more stir and progress, already, than is at all pleasant or convenient for the reporters; they of the Pomological have already raised such a spirit for prizes and competition in fruit all over the country, as bids fair to overwhelm the Horticultural and all such. Instead of *dishes* of fruits for the dessert, we had *bushels* to select from, both for kitchen and table; instead of match-corners, tops and bottoms with Pine-apples and Grapes, we had them there by the whole dozens of Pines; and

the numbers and variety of Grapes, Plums, Strawberries, Raspberries, and Figs, were too much, and too many, for the size of my note-book, and for the strength of the official staff of the Society, so that nobody knew how the prizes went, because no tickets could be prepared in time to tell of the lucky winners; and were it not for a few drops from the lecture, one would not even know that the dessert table for this great party was turned "end for end:"—that is, the bottom of the table stands now where the top used to be; or else the contributors for either end changed places, which is the more likely of the two, but of which we shall not be altogether certain until the Society find time to publish the official accounts; therefore, if I should drop a guess, here or there, in this report, as to who had this or that prize, it must be taken as my own hasty opinion at the time; and such opinions are always liable to be at fault; but instead of putting the blame on my shoulders, lay it at the door of the Pomological, who caused all this *overwhelmingness*.

The great attraction among the flowers was from the numbers, and variety, and extraordinary improvement in the *Pomponé Chrysanthemums*. No one could have believed that such a stride could have been made in one twelvemonth; but the telegraph must have been at work lately, and told of the strength of the opposing parties, and the result was as curious as instructive. You recollect, that formerly the Society chose a wrong meeting-day for the Chrysanthemums—some day in the first week in November—and I had to open a cross fire against that arrangement, till the right day was appointed; and this was the second return to the improved system of the Society, and that on the side of the competitors, who, from the electric disclosures of the last few weeks, left the field in a body, and gave up all chances of prize-money, rather than undergo the humiliation of being beaten on their own ground by a set of new comers, who had been drilled for years on the outskirts of London, but could not enter the lists at the Horticultural until now, owing to the day of meeting; hence it was, that all the competitors in this class were new men this time. New brooms sweep clean; and there never was a sweep more cleanly done than with these very Pompones. No one can now resist the temptation of growing a select, and very select, assortment of them, be his means what they may. France is alive with new kinds of them. Mr. Turner, of Slough, who is the best judge of fancy flowers in the three kingdoms, told me, at this meeting, that he was over in France this autumn, and knows of one grower there who has eighteen new kinds of Pompones, which are as early as *Hendersonii*, that is, coming in for the autumn decoration of the flower-beds, as a change from Geraniums, and to fill up Heliotrope, and such other beds as may have been hurt by an early frost; also to make good such beds as happen to get out of bloom by the middle of September, because there is a good promise of a heavy bloom in ten days or a fortnight, no one will grudge a plain Pomponé-planted bed for a while. Indeed, my own bed of *Hendersonii* alone looked much better at the middle of September than scores of beds I have seen in first-rate places; and at this very day, the 21st of November, I would not fear entering the lists against a Duke for out-door Pomponé Chrysanthemums, after thinning my stock considerably, to extend a taste for them among the great and good on each side of me. I have now proved forty-two kinds of them, and made up my mind to reduce this number to eighteen or twenty, and get in new ones. There were four kinds at this meeting, which I must have; and Mr. Turner has six or seven kinds of the earlier ones, which I cannot do without; and I am going over to Mr. Salter, at Hammersmith, in a day or two, to fix on the best and newest kinds in his collection; for the good of all parties, therefore, I shall defer my annual selection

of them a little longer, and merely give the names, and a few other particulars about those which were exhibited at this meeting. Two distinct ways of treating the plants were exhibited—one was, to train down the shoots to near the rim of the pots, then raising the points in, or as near to a circle as could be done, and then working and twisting the rest of the shoots, so as to get their points on an exact level within this circle; this modo throws all the flowers on a flat surface, and you cannot see a leaf of some of the kinds, without looking in below the circle: generally, there are three plants in one pot—No. 16—to effect the flat surface.

The second plan is to allow the plant its native freedom, but to stop some of the strongest shoots in June, in order to make the head more regular, and to use very few sticks indeed; the latter is my own favourite plan, for I was never one of the tight-laced school; but the judges, I believe, gave the best medal to the best flat plants at this meeting; but if you had seen them, I am quite sure you could not come to any other conclusion yourself. This collection was from Mr. Wetherel, gardener to D. Mc'Neil, Esq., Hornsey-road, and consisted of the following six kinds:—*Cedo nulli* was above four feet across, and you could hardly see a leaf; nothing but one whole mass of snow-white flowers, larger than the average of Pompones, with the tinge as if from the rays of a fine sunset; this is the gayest light-bedder out-of-doors of my lot; but it does not come with that soft, snowy-whiteness as it does in-doors, and the centre and some of the outer petals keep tipped with light brown to the last, as when the flower is first opening under glass. *Drine drine*, one mass of yellow, and not a single leaf to be seen. It is earlier by a week out-of-doors than *Cedo nulli*, and both belong to the second early class of bloomers. Without a single stick, my *Drine drine* throws all the flower on the surface. *La Gitana*, another whole mass of blush-white; it belongs to the latest bloomers out-of-doors, and there is not nearly so good as in a pot. *Bole*, a dark Spanish-brown tint, new to me. *La Sultana*, a bright blush, pinky shade, very handsome as a whole, but the individual flowers have the evil eye; and *Requie*, a handsome, bold, globular flower, of a reddish-rosy purple, also new to me.

The next collection was in twenty-four pots, and sent by Mr. Shrimpton, gardener to — Doxat, Esq., Putney Heath. The kinds were *Requie*, and *Drine drine* again; also *Autumnum*, an excellent, close-habited kind, dwarf, and a most profuse bloomer; out-of-doors it is as dark as the old Spanish-brown Chrysanthemum, but in pots that shade is lighter. *Helene*, a purplish-rosy tint, in the way of *Pouledette*, but, as I think, a better flower. *De Or*, an excellent yellow flower, and one of the latest in the open air, also a dwarf, compact grower; and *Madame Rousselon*, a decided improvement on *Surprise*, in a pot, as it keeps the rosy-lilacy tint, which *Surprise* does not, but turns to a light blush under glass, while in the open air no one holds better to the higher tint, or lasts longer in bloom than *Surprise*, which is still my favourite flower of the race; but when my new conservatory is done, I must take to *Madame Rousselon* for the same lively tint in-doors.

The next collection was from Mr. Oulredge, gardener to J. Foster, Esq., Stamford Hill. It consisted of *Madame Rousselon*, *Cedo nulli*, *Solfaterre*, a bright yellow, but a thinner flower than *Drine drine* or *Sacramento*; the latter did not come out on this occasion; *Bijou de Horticulture*, a blush-white, and *Helene*.

Mr. Windsor, gardener to A. Blythe, Esq., Hampstead, had a well-grown collection, and only one plant in each, in No. 16-pots; they were *Cedo nulli*, *Bijou de Horticulture*, *Adonis*, a dark, pinkish flower, and a very late kind in the open air, *Autumnum* and *Argenteum*, the purest white when full blown, with *Fenella* under a wrong name, *La Langleur*.

Mr. Shrimpton had a second collection of large Chrysanthemums, which was disqualified for having one half-double Pomponc in the set called *Junon*, a brown flower, with a yellow bull's eye. He had, also, a fine single specimen of Pomponc called *Nelly*, a blush-white.

There was one collection of enormous large plants of the large Chrysanthemums, from Mr. Robert James, an amateur, at Stoke Newington; the enormous size and perfect training of these plants struck every one in the room as most remarkable. The kinds were *Defiance*, a quilled white kind; this plant was five and six feet in diameter, and the highest flower on it only reached to three feet from the ground, and the pot was nearly half the height, and so with the rest; *Pilot*, a rosy flower, with a blush centre; *Chevalier Dunnage*, a fine yellow; *Vesta*, a fine white, with expanded petals, the opposite to *Defiance*; *Annie Salter*, one of the best yellows, and *Christina*. To hold these six plants tight-laced, there might be about 400 sticks made use of! If the Stamford Hill Society for the improvement of these beautiful plants encourage all this strain and tightness, may I never come within the influence of their operations.

There was a collection of twenty-eight cut flowers of these large Chrysanthemums, which were remarkable for the incurved position of all the petals, thus forming every one of them like the top part of a cone, by some artificial process, which I heard variously explained; but as I do not take any account about the shape of flowers, I cannot enter into the merits of this or that way of dressing them.

The Messrs. Rollinson, of Tooting, were large contributors to this meeting; they sent a collection of Orchids, consisting of *Raphinia tigrina*, a new kind, of which there were cut flowers from Mr. Bateman; the plant looks like a Stanhopea, and flowers just in the same style, but the flowers are different, and of a brownish tint, with lighter bars and markings. A *Cattleya Perrenii*, a ditto *labiata*, *Angræcum bilobum*, *Cymbidium Masterii*, with white drooping flowers on a stand-up spike, and a *Cattleya luteola*, a dwarf, alpine-looking plant. Also a collection of variegated plants, such as a fine, striped *Yucca*, three kinds of *Dragon trees*, and two *Crotons*, and a most beautiful-leaved plant, the *Lomatia Australia*. They also sent an independent collection of plants, with fine foliage, among which were *Oldfieldia Africana*, some *Rhopalas* and *Aralias*, with *Brexia chrysophylla*, and also a collection of Myrtle-leaved *Orange-trees* in full fruit.

The Messrs. Henderson, of the Wellington Road Nursery, were likewise rich contributors in rare plants, and plants with fine foliage, among which were two distinct kinds of the prettiest dwarf variegated plants, the lovely little *Sonerila margaritacea*, the beautiful Fern-leaved tree called *Cupania filicifolia*, a *Burlingtonia decora* Orchid, and many more in that style.

Mr. Clark, of Hoddeston, sent a plant of *Sophranitis grandiflora*, a dwarf alpine air-plant, with large vermilion blossoms, from the highlands of Brazil, where the frost is often hard enough to make ice.

I did not see more than two little plants of *Æschynanthus fulgens*, an upright flowering kind from Mr. Veitch.

Mr. Maul, of Bristol, sent a splendid nosegay of the flowers of *Vanda cœrulea*, the handsomest we ever had in that room. Mr. Ingram sent us also a nosegay of a rare Texas *Ageratum*, from the royal gardens at Windsor.

An unusual specimen plant of *Lcschenaultia formosa*, in bloom, came from Mr. Rhodes, gardener to J. Phillips, Esq., Stamford Hill.

There was a large collection of stove and greenhouse plants from the garden of the Society, and a collection of *Pears* from their Orchard-house; also a collection of *Chinese Primroses*, and a second collection from another

garden. Also, the new, most curious *Water Yam*, from Madagascar, in a glass milk-pan full of water. A contrivance of *pots for growing Sea-kale*, and for propagating plants; also, a contrivance for covering pits and frames, instead of mats, and a great deal about the new *China Yam*, of which we heard so much last spring; but all these, and the awards for fruits and vegetables, must stand over for another week.

D. BEATON.

FARM AND GARDEN PRODUCE IN CALIFORNIA.—An agricultural show has just been held at Sacramento, at which the productions of the country were exhibited for prizes. The show of animals was remarkable only as giving evidence of considerable improvement in the breed of horses since the Americans have been in possession of the State. The exhibition of fruits and vegetables was really curious—the former from their variety and precocity, and the latter from their gigantic size. Pumpkins weighing 129lb., beetroot $7\frac{1}{2}$ feet long, and a stalk of Indian corn 24 feet high, were among the “monsters” of the exhibition. The vegetables of this country grow with a luxuriance unequalled elsewhere, but they are deficient in flavour. It appears that peach and pear-trees frequently produce a double crop in the same season. The productiveness of the strawberry-plant is also very remarkable. A bed in the garden of a friend of mine in San Francisco has been bearing for six months, and the plants are now, on the eve of winter, in flower; but in favoured situations strawberries ripen during every month of the year.

It appears, also, that the great variety of the soil and climate of California favours the growth of all the ordinary cereals, while flax, cotton, the sugar-cane, tobacco, maize, rice, oranges, grapes, lemons, olives, pomegranates, nutmegs, and tamarinds also thrive in different parts of the country. Many tropical plants and fruits are indigenous; and all those of the temperate zone flourish. The country is rich in flowers and unequalled in pines, as is verified by the “*Wellingtonia Gigantea*” now so well known in England; and, though last, not least, the silkworm is about to be nourished into usefulness. The great desideratum to the full development of the agricultural and other rural resources of the State is cheap labour. The high price of labour has hitherto retarded the enterprise of the farmer and of the horticulturist. Nor is there much prospect of a speedy remedy, for the high yield of the mines competes with wages, and keeps the latter high.—(*Times' Correspondent*.)

If American soil can produce Beet-root $7\frac{1}{2}$ feet long, and Indian Corn 24 feet high, and as we know it produces the *Wellingtonia*, 300 in altitude, we no longer consider that its Oceans may not yield Sea-Serpents.

LITTLE MATTERS.

THERE is an old proverb, that “every little helps to make a meiklo,” having its counterpart in another saying, albeit, with something of the closefistedness in its composition, “take care of the pence, and the pounds will take care of themselves.” Gardening is just a work of minutiae, and no man will ever shine in it, whose mind is so constituted that it can deal only with great results. Wherever extra success in gardening is seen, all who look beneath the surface will observe that that success is not so much owing to great resources, ample means, and a great array of conveniences, as to extreme attention to *little matters*, with the general and scientific knowledge that enables the operator in his generalizing habits to perceive, at once, to what results these little

matters tend. A few of these I propose naming, merely in the way of remembrance, as peculiarly suited at this season of the year to window and greenhouse plants.

CLEANLINESS.

This is as essential to a growing plant as to a tender animal, and even more so, as both the processes of perspiration and respiration are effected through the bark and foliage. Many, however, who talk in extacy of their love for plants and flowers, will allow them to stand for days and weeks well coated with dust, and then wonder why the plants will get sickly, and the leaves yellow. A little reflection would teach them that there was more necessity for keeping these leaves clean, than for the daily ablutions to their own persons. The condition of plants, in this respect, will soon form a kind of index to the character and intelligence of their possessors. A walk along the streets of a country town, where the inhabitants keep plants in their windows, thus furnishes at once a good idea of the distinguishing characteristics of the different households. Let it once be known that there is such an easy and successful mode of “taking notes,” and young ladies, especially, will be tempted at once to turn all their plants into the ash-bin, or to give them the attention which their circumstances require. I have known plants, kept inside and outside of windows in London, without a dot of dust or a black being scarcely ever seen upon them, so carefully was a soft hair brush and a sponge applied to the stems and foliage, or fingers washing them more delicately still. It would be one of the seven wonders to find afterwards that such a person, so attentive and kind to her plant protégées, would ever become careless and slovenly in her habits when she had a household of her own to superintend. Those who aim at keeping plants in good order at this season must deign more attention to their cleanliness than setting them out-of-doors in a rainy day—the chilling cold often doing them more injury than the washing does them good. In washing, in winter, the water should be rather above 50° than below it, or a few degrees warmer than the temperature in which the plant is grown.

While dust is to be set adrift, no yellow leaves should be seen. As soon as they lose their green tint, they are of no more use to the plant; while so long as they remain upon it, or lie in its vicinity in the same house, they, so far, pollute the atmosphere, and become a fit receptacle for mildews and insects. Every yellow, decaying leaf just so far indicates an amount of ignorance, or slovenliness. With plants retiring to their winter's rest their presence is more excusable; but then the sight of such a plant speaks its own tale, though, even in that case, a leaf wholly withered can be of no benefit.

INSECTS.

Unless a high temperature is maintained these will not now be active; but their hiding-places should be discovered, and every nest and egg removed and washed out if possible. There are many days when nothing can be done out-of-doors, and the plants may get a good cleaning within.

It is not often the *Mealy Bug* appears on greenhouse plants, unless some stove plants have been there in summer. Whenever you catch a sight of the pest, whether in greenhouse, or stove, and have reason to believe that it is to be found only in one plant, I would at once counsel burning it, however costly it may be. When once it gets into a collection, it will require great labour to keep it down, and, perhaps, years before it is finally extirpated; while from one plant, you may easily get every frame and house you have overrun by it. For hard-wooded plants, bolder remedies, such as a little turpentine, or spirits of wine, may be used. For

soft-wooded plants, tobacco-water, with a portion of size, just to make the solution a little sticky, is as effectual as any. I have seen great numbers of this insect killed with the size solution alone, and, unless very strong indeed, it does little injury to plants, as, while it coats the insects over and deprives them of breathing, &c., the thin fibre falls away from the plant as it dries and cracks, and is easily removed by water from the hand and the syringe. I consider size in solution as one of the safest and most successful extirpators of insects.

Scale of all kinds, whenever it appears on Oranges, Camellias, &c., should be washed off with soap and water, and then clean water be used to syringe them well. When it gets on small-leaved plants, such as Heaths, Epacris, &c., it would be an endless job to wash them. The best remedy is to dip them in a size solution, and place them in the shade for a few days, four or five, at this season, and then syringe them thoroughly with water about 65°, keeping the plants in a horizontal position, and turning them over and over. If that does not dislodge the vermin, it will be next to impossible to clear them.

Green Fly.—I have found a similar solution, with tobacco in it, one of the best securities against their ravages; but they are easily managed with tobacco-smoke. True economy, as well as success, say,—smoke whenever you see an insect, and do it repeatedly, in preference to larger doses.

Thrips.—This is not likely to appear much at present, except on Azaleas, though whenever it shows itself every effort should be made to dislodge it. The plants will stand heavier smoking with tobacco than in summer, and a good washing or two, with the sulphur and lime water, respecting which directions have been so frequently given, holding a portion of size in solution, similar to what was mentioned in the last volume, will generally clear the plants. While there is a chance of an insect left, be careful that no plant is taken into a forcing-house of any kind, if it can be avoided, or you may thus make a vast amount of labour for yourself, and a great injury to the established residents of the place. If there is any house, or pit, now empty, or containing such plants as Vines, and Peaches, and Figs, &c., the wood being thoroughly ripe, before commencing to clean it by washing, &c., it would be advisable to shut it up close, and burn a quantity of sulphur in it, covering the sulphur, when ignited, with moss, or dry sawdust. A dry day, or afternoon, should be chosen for the purpose, and the house should be dry, otherwise the sulphur will be apt to form a combination with the lead in the paint, and the paint will be discoloured for a time. Take care, however, that not a particle of the vapour finds its way to a growing plant, or it will soon finish it completely.

WORMS IN POTS, LAWNS, AND WALKS.

The two last are not quite in my way just now, but I thought I would just allude to them in passing. Nothing renders a walk more untidy than its being covered with worm heaps. If you sweep them off, you disfigure the gravel; as unless the gravel is very deep indeed, the worm is sure to have some of the best soil it can find. If you merely roll them down, they will be up again before you have many nights sleep. The most effectual mode for keeping worms at a safe distance, is using salt for keeping walks clean in summer. There is nothing but the expense at first to prevent salt being generally used for this purpose. A little experience leads me to the conclusion that no other means is so economical in the end, while the hoeing and turning of walks are wholly obviated, and a green, slimy piece of moss may never be seen upon them. I do not think it matters a great deal how the salt is applied—in a solu-

tion of hot water, in cold water, or broken small and thrown on with the hand. The weather is of more importance—choosing a dry season, and as much likelihood of sun as possible.

For worms, on lawns, salt is out of the question; but here, or even for walks, lime-water comes to our aid. A small quantity of lime, when quick, will do for a large barrel; if it tastes a little alkaline when put to the tongue, after it has settled clear, it will be strong enough. It is best to roll the ground a couple of days before applying it in the morning, as then the fresh holes will be open. Were it not for the untidiness, I would not find fault with worms on a lawn. In poor pasture lands I would consider them good assistants. In some cases their heaps form a good top-dressing, and their holes help drainage. I once noticed an out-of-the-way piece of lawn, very poor, which at length became good sward, by just leaving the worms alone. What made them revel in it, I never could divine; but for several winters their heaps were so numerous and large, that at a little distance the green grass could scarcely be discerned. After getting a good brooming and rolling in spring, the turf was improved greatly, year after year, and then the worms next to left it, or found the fibres of the grass too thick for them to penetrate easily.

Whatever we may think of worms at home in the field, we can have no mercy on them when they get into our flower-pots. In coarse, strong growing-things it would be easy to dislodge them with lime-water; but with tender things the lime might be too much for the roots, and it is safer to remove them by turning the ball out and examining it. Some of these slimy fraternity are so cunning, that the first tap you give the pot sends them curled up into the centre of the ball; but if you see a trace of where he has been, he must be dislodged by sending a thin piece of wire several times through the ball. Tender plants will not flourish in a pot along with worms, as their crawling about disturbs the roots, interferes with the desired conditions of the soil as to firmness and porosity, and stops up the drainage. Their entrance may be prevented, to a certain extent, by placing a tile or cap firmly over the hole at the bottom of the pot, and the other drainage placed openly above it, with a sprinkling of moss, to prevent the earth washing down. Though a small worm cannot get in, the water will ooze out freely enough. Worms, however, very frequently get into pots, by being contained in a very small state in the soil and manure used; and, therefore, considerable care should be given to

HUSBANDING AND PREPARING THE SOIL FOR POTTING.

All leaf-mould and rotten dung contains the germs of worms in most cases. When it can be done, leaves should be taken, when half-decomposed, in cakes, dried well over a furnace, &c., and then put away, and rubbed through the hands before being used. Cakes of cow-dung and other manures may be done in a similar manner. Fresh turfy-loam, heated and charred over a hot iron plate, or furnace, and then allowed time to sweeten, is valuable for most purposes, though requiring considerable trouble. The next best plan, is to get soil and turf collected in dry weather, in summer, and to lay it up so that little rain touches it afterwards. Provided the air can get to such heaps, I do not like to be turning, or chopping it before using it, as that causes the fibre to decay too much. By collecting such turf, &c., in dry weather, the worms will have gone deep in the earth after moisture. When I can get a piece of turf to be laid up for potting compost, I generally take it about one inch thick, build it carefully, but rather openly, in an oblong stack, from three to four feet wide, giving it as much attention as if it was a piece of prime hay. When four feet high, or so, or less, if turf is scarce, it is drawn

gradually to a point, hipped-roof fashion, and is then either thatched, or covered with turf, grass side outwards, to keep out the wet. In twelve months it is as sweet as a nut, requiring merely chopping down, and is never touched before it is wanted for use. Next to good turf, I prefer getting soil from the sides of the highway, picking out the most suitable. R. FISH.

WOODCRAFT.

(Continued from page 110.)

PREPARING FOR PLANTING.—I have already described some methods of doing this, but I may with propriety enlarge them, to suit all cases, and shall commence with new plantations of moderate extent.

In such a case, by far the most economical mode, if the soil is good, is to have it trenched, or, at least, deeply dug. In performing this, let all perennial weeds be carefully eradicated as much as possible; and the ground well broken with the spade. The turf, if any, should be taken off thin, and put in the bottom of the trench, equally all over, so that when it decays the soil may settle down level. Should there be any wild bushes, such as Bramble, Furze, Black Thorn, &c., these should all be cleanly stubbed up and carted off to be burnt. I suppose, if the situation is wet that it will be well drained, and the fences put in order in the manner I have described very recently. When the space to be planted is extensive, and the expense of digging it all over is objected to, then let the places be set out where the trees are to be planted, and good-sized holes made. First, chop off the surface; if grassy, lay that on one side, and then dig out the soil to its utmost depth, laying it also on one side to become mellowed by the time the planter brings his trees to be planted. In planting large tracts of land, I think by far the best method is to plant the trees in straight lines, at equal distances, first clearing off all the brushwood that may be on it. If done so, the labour of making the holes might be let off to the workmen at a price to be agreed upon. That price, of course, will depend upon the nature of the soil and the state of the ground; but if the work is let off, an intelligent, trustworthy person should be engaged to see that the men do their work well and properly. The same man might be directed to set out the places where the holes are to be made, and also to give in the account how much each man has earned every week. Such a man is called a gangman, and he might easily overlook and direct twenty men. The distance from hole to hole, and row to row, depends entirely upon the situation, soil, and exposure of the site. In high, windy situations, poor soil, and full exposure, the trees should be put in much thicker than in sheltered places and good soil. By planting them thicker in high places and poor soils, the trees will shelter each other; and, when grown to some extent, will help to draw each other up with clean, straight stems. In such a case, the distance from tree to tree should never exceed three feet every way, that is, three feet between each row, and three feet between every two trees in the row. There are 4,840 square yards in a statute acre; consequently, at three feet apart every way, each acre will require exactly that number of holes making previously to planting. If the land is better, and the situation rather sheltered, then the space for each tree should be larger. Four-and-a-half feet square might, with prudence, be allowed to each under such circumstances: 3,630 trees will then plant an acre; and, consequently, that number of holes will be required; and so in proportion to the distances from tree to tree will be the number of holes required to be made.

There are many advantages in this regular mode of planting over the old and common one, besides that of determining the exact number of trees required for a given number of acres. If the ground is level and good, a crop of root vegetables, such as Potatoes, Swede Turnips, &c., might be planted and reaped, the first year or two, between the rows. This cropping would naturally imply the keeping the ground clear of weeds, and the surface-stirring would encourage the trees to make rapid growth. The pruning, too, would be more easily and systematically done when the trees were in straight rows, than if they were planted in an irregular manner. If nurse trees are planted, they could, in such a case, be put in at regular intervals—perhaps every other would not be too many. But the greatest advantage would be in the thinning the trees when they required it. Orders might be given, for instance, to thin out one-fourth of the trees standing on an acre the first year; one-third, the second; and every other, the third, which would leave one-fourth on the plantation. These might grow three or four years, and then half of them be cut away. This method would be quite scientific and regular, and the commonest labourer on the estate might, without fear of a mistake, be left to thin the trees. Then, again, suppose the trees have grown pretty nearly alike, they might be more easily valued, because they could be counted exactly.

Some may object to this formal mode of planting; but I think that objection a futile one; for when the trees are grown up some twenty or thirty feet high, the branches will touch each other, and thus do away with the straight-line appearance.

The late Duke of Portland sowed his acorns, or planted his Oaks, in straight lines; and where is to be seen finer young Oaks than at Welbeck?

Lastly, the expence of planting, and the cost of the trees, could be accurately estimated, if the exact number of trees required, per acre, were ascertained, which, by this regular method, could be easily and correctly done. The chief point I wish to press upon all interested in forest planting is that of planting early and planting well. By so doing, the trees would quickly push new roots before the winter set in, and thus be drawing up and accumulating a large amount of ascending sap, by which the trees would be stimulated to push forth strongly the season following. I would not leave a single forest tree to be planted after the new-year's day had passed.

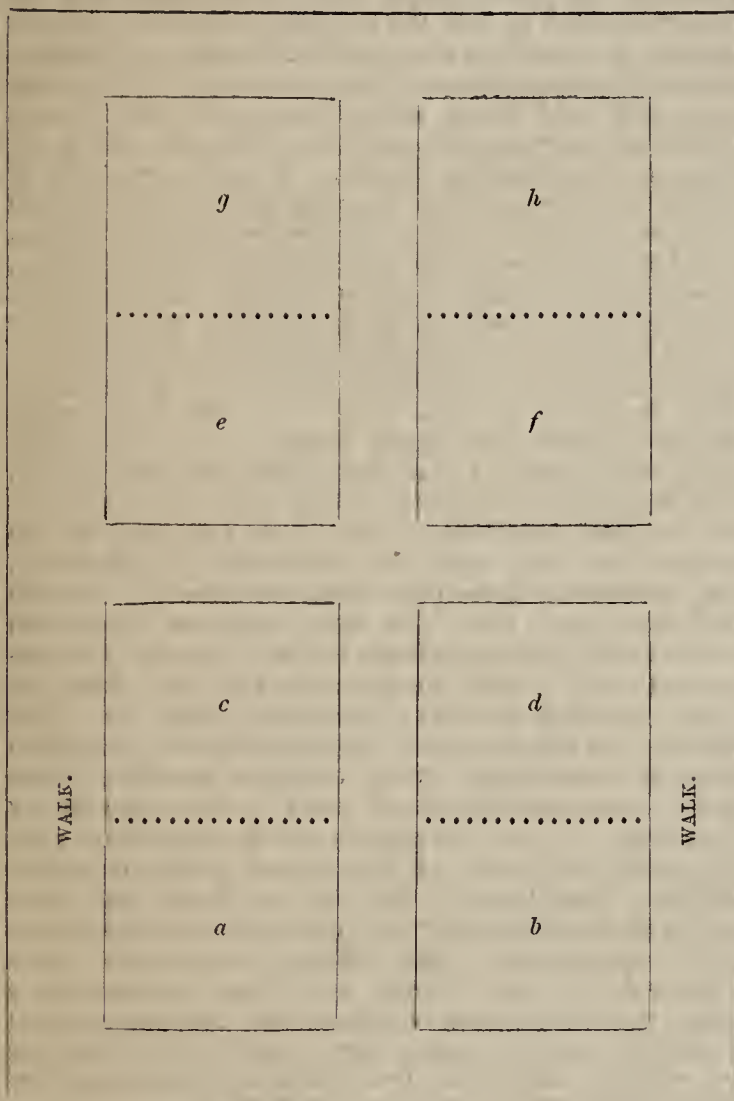
T. APPLEBY.

(To be continued.)

GARDENING FOR THE MANY.—DECEMBER.

GENERAL REMARKS.—We now come to that dead season of the year in which it is, unfortunately, too common to neglect the many things which might as well be done as later. There being but little that is really urgent, the mind is satisfied that longer days are coming, in which certain works can be as well done. This is often wrong; all earth work ought to be done early in the winter, in order that the frost may have every opportunity to act, and the *planting* of shrubs and trees ought to be all done as early as possible; evergreens by October, and deciduous things as soon as half the leaves are off. Supposing that all this description of work has been done in the last two months, and also all other alterations intended, there is certainly more leisure at this season than afterwards; and the cultivator will enjoy that with more real pleasure than the careless-go-easy individual who allows everything to take its chance. Still, December has its duties as well as enjoyments; the plants that are secured in the *frame* must have attention paid them, or, in some joyous night,

about Christmas, it is likely King Frost will be laying hands on them; or, long before that, the insidious enemy, "Damp," will be carrying them off piece-meal. The *fruit-room*, too, will want looking over betimes, to remove decayed fruit, and otherwise to keep the general stock in order; and as some of the kinds of Pears and Apples will be getting out of season, and done with, the place they occupied will give the other kinds a chance to be laid thinner. Routine work of different kinds will also require its proper share of attention; but that will be dwelt upon below; but I cannot do more here than enforce on the proprietor of small gardens the propriety of hurrying on any alterations intended, and that all new work ought to be done forthwith.



a.—This being *Strawberries* and *Raspberries*, little can be done except removing anything unsightly that may by accident get among these crops. Suckers of *Raspberries* may be taken up; but the general pruning had better be deferred until March, unless in dry, early situations, where the canes have been well ripened. The best way to grow *Raspberries* is to tie the canes to a sort of slender trellis work—wire looks best; this is better than tying them up in a bunch; yet good fruit is often obtained from the latter way. Prune all *Gooseberry* and *Currant* trees without delay which may surround this or any other quarter, and remove the cuttings and other unsightly objects at once.

b.—Look over the *Brocoli* frequently, and cut all that is ready, and store it away in some cool place, where it will keep for several days without injury, while a sharp frost destroys it. Take notice of the various kinds, and note down their features, so as to judge another season which is the most valuable. If the situation be a very cold one, it is

better to lay some of the winter *Brocoli* plants on their sides, which is done by beginning at the west side of the plot, and take a spit of earth from that side of the plant, and then bend the plant down that way, taking a spit of earth from the next plant, and laying on the back of the first one, to keep it down, and so on, until the plot is finished. This system enables the plants to endure a harder frost than they otherwise would, and the oblique position does not in any way prevent the head from assuming its proper shape.

c.—*Asparagus* beds having been done up for the winter last month, the *Globe Artichokes* will require a little covering up before very severe weather sets in; but the forcing of *Sea-kale* will be the principal duty required here; and, in fact, one of the most important of the season. This is, unquestionably, best done on the ground, if fermenting materials are at hand; only care must be taken that they do not overheat, as this is a time where a very little too much heat will destroy the plant; whereas, in March it will endure much more. There is no better way than covering the plants with pots or boxes, after first scraping away a little of the earth from the collar, and covering it with coal-ashes to keep away slugs, &c. Tree leaves are as good as anything, and their gentle heat is seldom too strong for *Sea-kale*. *Rhubarb* may be brought on in the same way, only it is much slower to start; but after that its progress is quick.

d.—On the approach of very severe weather, cover up the *Celery* with dry litter of any kind, after taking up and storing away what is likely to be wanted for a fortnight or so. Level and dig the ground as it becomes vacant, which will both look better, and also receive the benefit of the frost. Avoid treading on the ground when it is wet, if possible.

e.—This being *late Brocoli*, and other winter stuff, requires no particular notice at this time, save to lay some of them down as detailed above. Should the winter be very severe, they may suffer, more or less; but, in a general way, *Brocoli* escapes without any protection; although, in very remote, cold situations it is taken up and planted thickly in some protected bed or cold frame, where it forms its heads in due time; certainly they are smaller than they would be if left undisturbed, and mild weather continue; but such is not to be expected in the most northern part of the kingdom.

f.—Take notice that the frost does not throw out the *Cabbage* plants that may have been planted late; and if the wind blows them about so as to make a sort of hole around the stem of each, tread it well on a dry day. Should weeds make their appearance amongst the first planted, let the ground be slightly pointed over, burying such things as Groundsel, Chickweed, and the annual grasses. And the digging being done in dry weather, or when there is a slight frost on the ground, it will derive much benefit from it.

g.—Take notice that the *mice* do not attack the *Peas* sown last month, which they often do about the time they are coming up. Dig any vacant ground where *Carrots* or other roots have been removed. *Ridging* is better than digging on stiff soils. *Beet* may remain in the ground until wanted.

h.—Take care and house some *Turnips* before severe weather renders the job difficult. *Lettuce*, too, might be taken up with a ball, and planted thickly, in some place under cover, where it will keep for some time fit for use. *Endive* may be treated so likewise. Blanch the latter, either by tying up or laying something over it, as a saucer, pan, tile, or anything that will exclude the light.

KITCHEN-GARDEN BORDERS.—Beds of *Lettuce plants* will require attention in mild weather, as the slug is apt to make sad havoc of the small plants which it is most desirable to save; dusting with lime, or soot, will help to save them; in severe weather, bend a few rods over the bed, and throw a mat over them. See to other beds of seedlings, as *Cauliflower*, *Cabbage*, *Spinach*, young *Onions*, &c., the first-named requiring more protection than the Lettuce. Plant *Shallot* and *Garlic*, if wanted, and clear away all rubbishy crops; and, at the same time, prune and nail the trees as directed in former numbers of THE COTTAGE GARDENER, the *Peach* and *Nectarine* alone excepted. And prior to forking the border for winter, a good dressing of dung will be of service, more especially among the *Gooseberry* and *Currant* trees which margin the quarters of the kitchen-garden. *Gooseberries* do not require much shortening, that is to say, the young wood that is left had better, in most cases, be left its whole length. Red and White *Currants* may be treated differently, but black *Currants* require the same treatment as *Gooseberries*.

FRAME.—The plants housed here will require constant attention, to see that damp does not carry them off. Some of the most delicate ought, if possible, to be accommodated in the house, even if the place was not very light; the dry air will arrest that decay which *Cinerarias* and other plants are liable to when kept too long in cold frames; while such things as *Fuchsias*, *Calceolarias*, *Myrtles*, and most hard-wooded plants, will endure a great deal of damp without serious injury. Cover well up at nights, and give air on all favourable occasions; an almost total exposure will not be too much in mild days, provided the plants have not been long confined beforehand; in the latter case, a gradual inuring them to it will be necessary.

FLOWER-GARDEN AND ROCKERY.—There being little now to interest the ordinary observer in the shape of flowers, a more than usual adherence to neatness will be wanted. The beds and borders may be all neatly dug, after having duly thinned and reduced the plants, and added a little manure. Shrubs of all kinds may yet be planted, but it is better if done sooner. See that tall plants are properly secured. This applies more especially to *Roses*, *Irish Yews*, &c., that may have been recently planted. If any alterations are contemplated, let that now be done; and all damaged turf may be at once repaired, by replacing it with better; and, in fact, everything should be done to give this otherwise dull season as cheerful an appearance as possible; and it is surprising how much ordinary neatness can accomplish that way, assisted by a few bright evergreens, of which, perhaps, *Portugal Laurel*, and *Holly*, with berries on it, stand foremost. *Laurustinus*, which will be in flower now, is also useful; and the list may be further extended by *Irish* and common *Yew*, *Boxes*, *Phillyrea*, and though last, not least, the somewhat despised common *Laurel*.

J. ROBSON.

FRUIT-TREES IN POTS *versus* THE SAME IN THE OPEN BORDER.

Much as our craft has advanced during the last few years, its progress has not been entirely without some admixture of alloy. The attempt to upset the pedantry of the last generation has, in some cases, resulted in the introduction of theories, having as shallow a foundation as the other had, and now and then we hear of strange anomalies.

Plant-growing, assuredly, has made great progress, and that, in most cases, in the right direction; but plant-training has often assumed an artificial feature bordering on "quaintness." This, however, promises to be rectified in time; public opinion having decided against the

"forest of sticks," with which some fine plants were disfigured; and a more "natural" way of growing and shewing them promises to be the order of the day.

Fruit-growing has, in some cases, retrograded, rather than advanced. Apricots, Apples, Peaches, and Nectarines being quite as good fifty years ago as they are now, and, from all accounts, quite as plentiful. Neither has there been any advance in the culture of these fruits. Pines and Grapes, have, assuredly, advanced; both being fruits of gross habits, rich and stimulating food has been administered to them at times when it was wanted, and good results have arisen therefrom; but every move in the direction of fruit-growing is not sanctioned by rational principles. Pines have been grown to great perfection in beds heated from below, the roots no longer cramped up into the compass of a flower pot, but allowed to ramify in all directions, through a compost enriched by applications of liquid-manure. This is all very well, and seems neither more nor less than a return to those natural principles which the plant enjoyed in its own native climate. But when we hear of parties who advocate the "turning out" (as it is called) of Pines, and the "potting" of Peaches, Cherries, Plums, and Apricots, it seems an anomaly difficult to reconcile, on any known principle of horticulture; a Pine being an herbaceous plant, yielding fruit in a much shorter period than the hard-wooded kinds above alluded to, it seems difficult to comprehend the meaning of such a wide departure in both cases from the usual mode Nature had intended each to pursue. The Pine being, in a certain sense, a short-lived plant, for that portion of it which bears the fruit does not do so again; whereas, the trees above-named are all as long-lived as the human race, and very often much longer. Moreover, the constitution of the plant does not allow it to absorb and feed upon those rich and nutritious substances which fit the Pine and Grape for early service of an important kind. Hard-wooded trees will grow faster by being impelled on with stimulating food, but their growth is at the expense of their fruitfulness. A certain space of considerable extent ought to be allowed them to feed upon, and their food ought to be sound rather than rich. In fact, it ought to be in accordance with the habits and wants of the species, which is widely different from that of the Pine or Grape, for these arrive at an early maturity, stimulated to a great extent by the means used. And although hard-wooded trees may, and do often, become useful bearing trees for a single season, it is rarely indeed that they continue to be so for a series of years; and, in spite of all that can be said or written on Orchard-houses, there are few places where they have given satisfaction.

A nurseryman, having a large stock of healthy, young trees in his grounds, can easily select a few likely to suit his wants, and these trees, taken up with care, and potted on the spot, form, no doubt, good bearing trees for the time being, for the same reason that Hyacinths bloom well or ill as they may have been grown the preceding season. In like manner, a Peach or Cherry may form good bearing buds, by its growing in a suitable medium out-of-doors, but after producing a heavy crop of fruit, when in such an artificial condition as must be in a flower-pot, the chances are sadly against it doing so again. I mention this, not as an unsupported theory, but as the result of practice, though not in every particular the same as those who lay down laws for Orchard-house building and management; still, a tree in a pot must be a potted tree, whether in an Orchard-house or in any other place; and there are few places where these fruits have been grown to any extent with anything like the success the outlay demands.

I well remember, some twenty-five years ago, there was a plan before the world of growing our hardy fruits in "Miniature Orchards," as they called them, intimating

that, by a judicious treatment, the trees might be prevented making any wood, except fruit spurs, which were also expected to produce as good, if not better, fruit than that grown in the usual way. This agreeable scheme had much in it to interest the suburban gardeners, and others of small holdings, as they were told how much larger numbers of trees might be grown on a limited space than by the old plan, and a corresponding increase in the quantity and quality of the fruit grown. This plan, like many others, fell to the ground; although, in its expiring moments its friends were more loud than before in praising its merits: but we hear of very few, if any, "Orchards in Miniature" now; and though stunted trees may be frequently found, they are only successors to others which existed long before the so-called "Orchards" were thought of.

In like manner, an Orchard-house is only a new name for a glass structure; fruit-trees of the stone fruits having existed long ago, potted and treated in much the same way; but the much greater certainty there was in a crop when the tree had a much greater scope for its roots, led to these fruits being planted out and trained in some manner. Potted trees being only regarded as a curiosity, I very much doubt whether they will ever be remunerative, as the comparative few who have succeeded in making them so, leads to strong doubts of the general utility of the plan, and the silence of the most that have adopted it speaks much against it.

However, as an object of curiosity, I would advise the amateur, who has a cool house in which he can accommodate a tree or two, to try these on a small scale, before he puts up a house expressly for them; but if he determines on having such a structure, better let it be made so as to be readily convertible into something else; and do not let him be led away too much by the so-called economical mode of building such houses. Let him remember what has been said of "cheap furniture," and many other cheap articles; and when he is erecting a house, let a certain amount of stability be considered as well as other features; and in the end, he will reap the advantages, all other things considered. A cheap temporary house is more becoming the proprietor of many such, because he is likely to have a man handy at all times to repair them; but the amateur, who has but a very limited area of glass structures, will find the vexatious repairs to a "cheaply" constructed house very often a serious affair, independent of the annoyance experienced, by now and then a sad disaster in consequence of inadequate fastenings and other defects in "cheap" houses.

Much more might be said on this subject; but I have said enough to put the unwary on their guard against expecting too much from this novel mode of producing fruit. Like glass walls, these "economical" toys will be found very expensive in the beginning even, and, I fear, unsatisfactory in the end. Far be it from me to discourage enterprise; but the pursuit of new paths ought not to be urged on those of limited means, and "Orchard-houses" have not yet been proved as remunerative to the general mass of cultivators; and time will determine whether the number of such houses is not greater in 1855 than they will be in 1865.

Of course, if the house assumes another aspect (as the Polmaise heating did by resolving itself into an old-fashioned flue) it may go on; and in preparing a house for fruit-growing in pots, it would be well to consider the likelihood of such a contingency, as it being adapted to grow them better when planted out in the open borders; and the heating contrivances and other internal features ought to be so arranged as to offer no impediments to that object, which may have to be carried into effect sooner than the sanguine pot-cultivator may imagine. Some of the trees which had assumed a

somewhat gooseberry-headed appearance have afterwards had to accommodate themselves to the flattened surface of a wall, with, however, this consolation, that they were allowed abundance of room to grow in, and probably might become good members of the fruit-bearing community in their altered circumstances.

J. ROBSON.

[We have inserted this in accordance with our unvarying rule—"Let both sides be heard." Of one thing we are quite sure, Mr. Robson assumes, what is not the case, that the friends of Orchard-houses maintain that these structures will yield as large a crop as more expensive Peacheries, Figgeries, and Vineries. Now, if he had read, just before writing, what Mr. Rivers said at page 92; what Mr. Fish saw at Berkhamstead, page 36; and if he had seen what Mr. Gordon has effected at Chiswick, he would probably not have written quite so positively.—ED. C. G.]

ALLOTMENT FARMING.—DECEMBER.

FLOWER-GARDEN.—The same attention to cleanliness, as recommended last month, should be continued here, to rake up and sweep all leaves from the grass-plot, and to dig the beds and borders, taking care not to disturb the bulbous-rooted or other plants. As every plant abstracts something from the soil, it is necessary to renew some of the exhausted soil of the flower-beds, which is done by taking away some of the second spit, putting what was the top into the bottom, and adding fresh to the top.

The proper management of PLANTS IN ROOMS is a subject attended with some difficulty, every genus requiring some variation, both in soil, water, and general treatment. If the room is dark and close where the plants are placed, but few will thrive in it; but if it is light and airy, with the windows in a south aspect to receive the sun, plants will do nearly as well as in a greenhouse. But if they are observed to suffer, the effects may be generally traced either to want of light and air, injudicious watering, dust or filthiness collected on the leaves, or being potted in unsuitable soil. The most essential point to be considered, is the want of proper light and air, for a deficiency of either will cause the plants to grow spindly and sickly. Deprive either trees, plants, or vegetables of light, and the best-flavoured fruits become insipid; plants of the richest colours assume an ashy whiteness, and the most acrid vegetable grows tasteless; then, all nearly agree in the qualities of their juices. If we deprive a plant of light, we deprive it of the power of fixing carbon; it is on the direct influence of solar light that its fixation of that most useful element depends. Deprived of light, it will not only cease to fix carbon, but it will continue to excrete it, and the result will be a weak and watery specimen of mis-management lingering to its death, under such unfavourable circumstances.

Plants in rooms very frequently suffer from injudicious watering at this season of the year. The two common practice is, to give water to such an excess that the soil becomes sodden, and the roots consequently perish. At this time but a small supply of water is required by the soil, because the stems lose but little by perspiration, and, consequently, the roots demand but little food; nevertheless, some moisture is required by plants to be replenished with food against the renewal of active vegetation in the spring; therefore, the best plan is to allow the soil in the pot to have the appearance of dryness before a supply of water is given, which should then be sufficient to wet the whole ball of soil in the pot. The dust collected on the leaves may be removed, as recommended last month, and all insects destroyed, by placing the plants under a hand-glass, or anything that is convenient, and carefully burning some tobacco until they become enveloped in the smoke. The part which the soil acts in vegetation is a subject of importance, as it is upon the knowledge that we possess of the properties of soils that modern experiments have suggested great improvements in the cultivation of trees, plants, and vegetables. But for our purpose, at present, it is only necessary to state that all plants whose branches are fragile or slender, and

roots of a fine thready texture, like the *Diosma*, *Heliotrope*, *Salvia*, and *Epacris*, will require peat earth and very similar treatment to Cape Heaths. Others, whose roots are of a stronger nature, as *Geraniums*, *Coronillas*, *Hydrangeas*, *Myrtles*, *Roses*, &c., will require rich sandy loam with a little leaf-mould or rotten dung, and Cape and other bulbs generally succeed best in a mixture of light, rich, sandy loam, leaf-mould, and a little peat. Succulent plants, such as *Cacti*, *Aloes*, &c., require but very little water during the winter, and succeed best in lime rubbish mixed with any light soil. A good drainage with broken potsherd is indispensably necessary at the bottom of each pot, and always to empty the water out of the pan or feeder in which the pot stands as soon as the soil is properly drained. The plants to be kept free from dead leaves; and the surface soil in the pots to be loosed, if it is hard or green.

FLORISTS' FLOWERS.—Attend to the routine management, as recommended last month, and if newly-formed Pansy-beds are infested with worms, an application of lime-water, in a clear state, will either destroy or banish them.

CABBAGE and PROVENCE ROSES may now be pruned, if the weather continues mild; but the *China* and other kinds should be left till the winter is over.

In anticipation of **FROSTY WEATHER**, it is advisable, if not already done, to apply dung where most wanted, for principal crops, and to trench it in ridges, to enrich it for spring sowing and planting.

If the weather is mild, a sowing of *early Peas* and *Broad Beans* may be made on a south border, or on the warmest, dry quarter of ground. The Peas about two-and-a-half-feet in the rows, and two inches deep, and the Broad Beans three feet apart in the rows. Such tender plants, in frames, as *Cauliflowers* and *Lettuces*, should get full air daily, in mild, dry weather, should be watched narrowly for slugs, and kept free from dead leaves.

FRUIT-TREES may still be planted, as recommended last month, if the ground is not frozen, and is in tolerably good working order. If young Potatoes are wanted early, some *Ash-leaved Kidneys* or *Early Frame*, or any of its varieties, may be planted on a slight hotbed. If it is not convenient to plant them immediately, they may be laid in any warm place till they begin to shoot.

Strong, young plants of early sorts of *Cabbages* may be planted in open weather, they will come in for thinning by degrees, for use in spring and summer.

STANDARD FRUIT-TREES should receive occasional pruning when required, cutting out the cross and irregular branches, and thinning-out others where too crowded, opening the centre of the tree for the admission of light and air, reducing any over-extended branches, and low, straggling boughs, cutting away all dead wood, and grubbing up suckers from the roots.

In conclusion, we wish our readers a merry Christmas, and happy New Year, and may they enjoy all the comforts of the present season amidst Holly and Mistletoe. We would not have the cottager forget how all that submits to his hand, and appeals to his eye, is intended to do more, and to enlighten his understanding, and purify his heart. The bright Holly, the green Ivy, and the white-berried Mistletoe, are the symbols of mirth and enjoyment, not merely in connection with the things of time. May none of our readers justify these lines of Churchill's—

“December, last of months, but best, who gave
A Christ to man, a Saviour to the slave.
While falsely grateful, man at the full feast,
To do God honour, makes himself a beast.”

W. KEANE.

NOTES FROM PARIS.

THE weather continues dull, hazy, and cold. We have had a good deal of rain lately, and very little sun.

Border flowers are getting more and more rare every day. Cold and rain have destroyed all the Dahlias, Salvias, and Asters, but Chrysanthemums, Roses, Marigolds, and Veronicas, are still in good condition, in places where there is a little shelter. Flowering-plants in pots and bouquets are not at all scarce in the markets, though there is not a great variety. Heaths, Chrysanthemums, Violets, and the like, predominate.

Large supplies of fruit are still brought from the provinces, but, compared with those of former years, the prices are high, even for common varieties of Apples. Of Grapes, the best sort is the *Chasselas de Fontainebleau*, and good eating fruit may be had at from fourpence to fivepence a pound. One of the writers in the *Revue* complains that this variety only is to be seen everywhere near Paris, while it is well known that scores of other excellent sorts are cultivated in the southern and western provinces of France. In reference to the fruit exhibition, he states, that though the collections of Apples, Pears, and vegetables were not to be equalled, still the great Vine-growers failed to respond to the invitation of the Imperial Commission. It might have been supposed, that the want of railways, or other means of conveyance, was the cause of such indifference; but it would appear that such a plea would not be good, for, as it is stated, all the railways which run from the capital pass through districts which have long been famed for the culture of this esteemed fruit, and where new varieties are raised every year. The same writer justly remarks, that though the Horticultural Exhibition was inferior to similar displays in England, so far as regards plants and flowers, yet, in point of fruit and vegetables, nothing so complete has ever been seen elsewhere. But now all is over for this year; whether there will be anything like it next year is not yet very certain. During the last ten days, the whole, or nearly the whole of the numerous collections have been in the hands of the auctioneers, and at the present moment but very little remains for disposal, and, probably, in a few days more the ground will have been restored to its former condition. It is said, however, that an effort will be made to keep it up for another fortnight, owing to the expected visit of the King of Sardinia, but it is certain, that before there was any mention of this kind almost everything had been cleared away, and the ground torn up.

No account of the prizes has yet been published, but I shall, probably, be able to forward you some particulars of it in my next.

At the risk of noticing what may be already known to you, I shall just mention, on the authority of the *Revue*, that Dr. Regel, late Director of the Botanic Garden at Zurich, and editor of the *Garten Flora*, has lately been appointed by the Emperor of Russia as Director of the Botanic Garden at St. Petersburg. The amount of salary is not stated, but the principal assistant of Dr. Regel is to have four thousand francs (£160). It appears that the annual expenses of the establishment are as follows:—

Heating, 33,000 francs.

Labour (forty to forty-five men), 32,000 francs.

Plants, 7,300 francs.

Library, 6,800 francs.

A sum nearly equal to the last is allotted for the keeping of the museum.

Professor Decaisne has figured and noticed a fine, large, white Clematis, under the name of *Clematis Helena*, which he states was long ago introduced to French gardens, though it had been almost lost sight of for some time. The Professor appears to think that some persons pretend this variety has lately been received from China or Japan, but he does not state under what name. But whether it has been raised in gardens here, or sent from China, is a point which may not admit of easy solution, and, perhaps, the principal fact worth knowing is, that it is a shrubby variety, which flowers freely in May and June.

In reference to the Gizaumont soup, which I noticed in my last, I omitted to mention how it is made here in small families. A large slice of Pumpkin, weighing from one to two pounds, is cut down small, and put into a common pot, with about a gallon of water, a quarter-of-a-pound of pearl barley is added at the same time, and, subsequently, other vegetables, as Leeks, Onions, and Turnips, with one or two stalks of Celery, and a few twigs of Thyme, to give a seasoning. A piece of mutton, or beef, may also be put in the pot, if preferred. Of course, these several ingredients are not all put in at once, as some of them require less boiling than others. But this is a point on which I shall not venture further. Here, the common Pumpkin is extensively used in the same way during six or eight months in the year. Poor people may have a large slice for two sous, and they make what is

called *Soup au Potiron*. Potiron being the name of the Pumpkin.

The recent grand ceremony of distributing the prizes has reminded me of a fact which may be worth noticing, as it shows the estimation in which the French government holds scientific men at all great public ceremonies. The Professors and Directors of the Garden of Plants are invited, as a matter of course. Certainly, it is no more than fitting that they should be present at the distribution of the prizes in the *Palais de l'Industrie*; but the same honour is paid them as is paid the directors of all other scientific institutions here, whatever the nature of the occasion may be.—P. F. KEIR.

THE APIARIAN'S CALENDAR.—DECEMBER.

By J. H. Payne, Esq., Author of "The Bee-Keeper's Guide," &c.

BEES require very little attention during the present month; indeed, nothing beyond defending them well against wet, and seeing the floor-boards are dry and clean.

FEEDING at the present time would be most injurious. Disturbing them in any way should be avoided as much as possible.

SNOW.—When snow visits us, it will be well to close the entrances by the perforated zinc slider. I am aware that some persons consider this precaution unnecessary; but who that values the life of the bee can help being vexed on seeing the snow in front of the hives, when the sun shines brightly upon it, studded with bees never to rise again? and these not worn-out, old bees, but the prime of the hive; bees that were hatched late in the season, and destined to become the caterers of the rising colony.

Should snow remain long on the ground, and it becomes necessary to keep the bees in confinement for any length of time, it will be right, occasionally at night, to withdraw the slider, and, with a quill, gently draw out the dead bees that will sometimes be found to accumulate on the floor-board.

NYCTANTHES ARBOR-TRISTIS.

THIS interesting, night-flowering plant, of which, I believe, there is only one specimen in this country, is now flowering every night in great perfection at the residence of the Duchess Dowager of Northumberland (Lichfieldham). To those who are fond of sweet-scented plants, this must be of interest. It is natural for the flowers to drop off in the morning after flowering in the night, but they still retain their perfume, and keep good for many days. The other day, when I called there, some of the flowers that had fallen off were laying on the top of the pot, and their beautiful, rich, Jasmine-like odour filled the whole house. I was informed, Her Grace has taken deep interest in this plant for many years, and, from time to time, has imported seeds from India, but never could get any to flower until this season, and it must be a great pleasure to find, after so many years of hard labour, she has succeeded at last. It has flowered in this country once before, but many years past. I have little doubt, Mr. Uzzel, the gardener, will be glad to let any one see it; and, let me add, there are many good and well-grown plants to be seen there as well as the *Nyctanthes*.—A. B.

A NOVEL METHOD OF PROTECTING PLANTS IN PITS OR FRAMES.

PARDON me for troubling you concerning the "vexed question" of protection; but having waited in vain for a remedy to save our tender plants from the effects of frost, I am induced to offer a plan likely to meet the required point, although open to improvement. For plants situated in the hitherto perilous position, in frame, or pit, we have had our old friends, Russian mats, hurdles thatched with straw, wooden shutters, and a variety of other appliances, which

have all, in their turn, deceived us, and proved inefficient to guard against the incidents and accidents of a severe winter. The cause, I believe, is in our not placing the protector in the right place. We have wet, wind, and frost to guard against. The first, our glazed sashes will keep off; they also, unless very fragile, defy the wind; then *under* this protection we must place our contrivance to exclude the icy hand of Mr. Frost. How this is to be done, is the method I propose.

Make some stretchers, or frames, of wood (say one inch thick, and two-inches-and-a-half wide), the size of the *inside* of your frame, or pit, and stretch on them some *frigid* domo, felt, or the warmest material you have, which must be brought over the edges, and well nailed. The stretcher being complete, the next operation is to nail a cleet, or strip of wood, all round the inside of the frame, or pit, an-inch-and-a-half (or two inches if your plants will admit) below the rabbet on which the sash slides. On this place your stretcher, and slide down your light over the protector.

The advantage gained is, you have a perfectly air-tight protector, kept *dry*, and also a space of air between the sash and protector, which assists in excluding frost. When you wish to remove the stretcher, partially draw off the sash at the back, which will give room to take the stretcher from the front.—A. STUART, *Marden Nursery, Winchester*.

A RECEIPT FOR MAKING A QUICK EVER-GREEN HEDGE.

PLANT strong White Thorn three to four feet in height, say eight inches apart, and lay them thus—XXXX; place a row of tree Box on the outside, and a row of evergreen Privet on the other, and you will soon have a hedge that a bear will not penetrate. The use of the Box is to keep it close near the ground. If standard Scarlet Thorns are placed about thirty feet apart they will add to its beauty.—D. FERGUSON, *Stowe*.

NO SAMARITANS AMONG RATS.

SUCH of your readers as are either sportsmen or naturalists, are probably aware, that if one of a herd of deer in a wild state be wounded, the rest of the herd will gore it to death. This I conceive to be owing to an apprehension that their partly disabled companion would, in his endeavours to follow them, draw their carnivorous enemies on their track, and so lead to their own destruction.

If I am right in my conjecture, this apparent cruelty on the part of a generally inoffensive and timid animal is only in obedience to the law of self-defence, which some term the first law of nature.

It may be interesting to your readers of the second class to which I have alluded, to know that rats are addicted to the same habit.

You must know, Mr. Editor, that I am a Brahma fancier, and having some promising chicken, to use your own phraseology—(I was taught to call them chickens in the dark ages when I went to school)—the progeny of some first prize birds (which progenitors, by-the-by, I believe, have recently been purchased by Mr. Davies, of Hounslow, and, if I mistake not, have added to their laurels by winning a prize or two for him also; he would, I think, be pleased to see a cockerel of this brood, which bids fair to prove worthy of his imported parent), I keep a sharp look out for those troublesome and cunning vermin the rats. Having observed a rat's hole in rather close proximity to the roosting-place of my fowls, I set a trap, and caught one of the marauders. This victim evidently put the other rats of the family up to trap, for not another of them would enter my trap, and what must they do, but, abandoning their first communication between their subterranean dwelling and my fowl-house, they opened the trenches in an opposite direction. Now ensued a trial of wits between me and the rats. After a little cogitation, I stopped up the old entrance, and set a trap (without a bait) at the entrance of the new hole, and sprinkled some bran upon the trap so as to cover it, and upon the ground round about it. I then procured a

box about two feet square, without a lid, and placed it over the trap and the entrance to the rat's hole. This, evidently, puzzled the rats for a few days, as there was no indication of their having emerged from their hiding-place; but one morning, on lifting up the box, I found the trap sprung, and holding between its teeth the fore-foot only of a rat. On further examination, I found that the earth under the edge of and inside the box had been scraped away so as to admit of the passage of a rat, and, on searching still further, I discovered, at the distance of three or four yards, hidden behind some boards, a rat minus a fore-foot. This rat was quite dead, and the back part of its skull had been eaten through. I, therefore, arrived at the conclusion, that its cries, when caught in the trap, had attracted its companions from under ground, who, finding it disabled, killed it, and, in order that it might not remain close to their place of abode, scraped a passage under the edge of the box, drew away their unfortunate relative, after execution, and hid it in the place where I found it. I should add, that it was almost impossible that a weasel, or cat, could have been the cause of this rat's death. We bipeds without feathers are in the habit of monopolising the reputation of the possession of all the reason in the world; but I would ask of Messieurs the Philosophers, were these proceedings of the rats the result of reason, or of what we choose to term instinct?—R.

P.S.—A word in your ear, Mr. Editor. Do not abuse Brahmas. In addition to their excellent qualities as winter layers, you may take my word for it they are palatable birds for the table. As sure as their eggs are right good eggs, and rich withal, the favourable repute of these birds will increase as they become better known.

THE HORTICULTURAL SOCIETY'S GROUNDS.

WHAT ought to be done with them? I say, apply to the President to allow them to turn them into a cemetery for the West End of London; and, as a good example, the noble proprietor, the Duke, to make the first selection for himself. The subsoil of the greater part of the garden, I believe, is gravel, therefore suitable for the purpose; and though it would reflect no credit on a third-rate landscape gardener to lay out a new cemetery on similar principles, still, any practical that has entered the gardens from either of the entrances from the Duke of Devonshire's road, with his eyes open, must have been forcibly reminded of their cemetery look; and though it would be difficult, in fact, impossible, to make it a first-rate cemetery, without altering the whole; still, as there are a great many varieties of trees and shrubs that have now become fine specimens, I would allow them, in part, to remain, and try what could be done by judicious thinning. The conservatory appears to be in the right place for a chapel, and I can see no objection to the glass covering. As the burial service would only be performed here, a portion of it could be appropriated for first-class tombs. The portion of the grounds enclosed with a wall, where the medley of hot-houses and pits are now standing, could be let till required; for, even great as the mortality is in London, its cemeteries must be progressive.

Allow me to state, that I differ from you as regards one individual. I have almost invariably attended the Horticultural Society's Exhibitions, from the first to the last, both as a visitor and as an exhibitor, and have had ample opportunities of judging the man; and, I say, the whole of the Horticultural world is indebted to him. Remember, he stood alone as the first great pioneer, leader, and director of the first great Horticultural Exhibition. Is it, therefore, to be wondered at, that he alone cannot please everybody, when every manager of the smallest country village show is complained of by the unsuccessful? I have seen him, hammer in hand, nearly twenty-five years since, walk along the tents when his assistants were at their wits ends (for in those days there was no getting the exhibitors to keep time), give a look, right and left, and, in a twinkling, his eagle eye grasped the whole; down went the hammer; "there," "there," "there;" and the difficulty vanished. I have heard many gardeners complain; but the truth of the matter is, many of us re-

quired touching up. I shall never forget, when talking to him once, a Mr. D——, a nobleman's gardener, came up, and asked him for a ticket of admittance.

"What is your name?"

"D——, gardener to Lord B——, and brother to Mr. D——, of ——."

"I should not have known you. *He* always shaves before he comes."

Such as this might be grating to the ears, but, under the circumstances, not out of place; for, be it remembered, even some had to be called to account for that nuisance, smoking tobacco. I am sorry to see this allowed in the grounds of the Crystal Palace. The last time I was there, I found the air in the cavern almost suffocating from this pernicious habit. Ladies! you can do much to help us in putting this nuisance down.—D. FERGUSON, *Stowe, Buckingham.*

(Our friend mistakes our opinion. We think the gentleman in question quite capable of arranging flowers; and quite right in impressing upon gardeners the importance of personal neatness. But there are other qualities required for the management of a National Horticultural Society.—ED. C. G.)

NESTLINGS IN AN AVIARY.

AT page 455, in your number for September, one of your correspondents, signing "R. B.," inquires how he is to proceed in his aviary, to prevent the destruction of the young nestlings by the older birds. In the first place, "R. B." had better get rid of Bullfinches, Chaffinches, and other mischievous birds, and then reduce the number of male Canaries to but one to every two females. In this way, it is true, some of the latter are occasionally compelled to remain in a state of single blessedness (though cases of *bigamy* will occur), but the destruction of the young is usually avoided where the gentlemen are in a minority.—H. T.

QUERIES AND ANSWERS.

GARDENING.

SCARLET SEED BEADS.

"A friend has given me some seeds like those which I enclose. Papa cannot tell me the name of them. I hope you will be so kind as to do so.—GERTRUDE."

[What pretty seeds, to be sure! and how odd that papa, who knows almost everything, should not be able to tell you all about them. All papas and mammas ought to be able to do so, because these seeds are universal favourites with young people, who receive them from friends coming from the West Indies, where they grow wild, just as our black-berry brambles grow about the hedges with us. Any one who ever saw this kind of seed will know your present, when we say the seed is smaller than Sweet Peas, is of a bright coral-scarlet colour, with a jet black spot on one side. You can string them like beads, and we have seen such beautiful necklaces and bracelets made of them, as could never be made with the most costly beads. In Catholic countries abroad they make rosaries of them, which last no one knows how long. You could also work your name with them on a purse, or fancy bag; the words, COTTAGE GARDENER, wrought with them, at the top of a sampler, would bring good luck for having a taste for flowers, and for having flower-beds of your own some day. In working these seeds after the manner of beads, see that the black spot on the coral is outside, or full fronting the eye, else the extreme elegance of the work is not wrought out properly.]

They are not good to sow, however, in this country, for the plants would require a great deal of room, and a hot stove to grow them in; besides, the flowers are of no account, only little purple pea-blossoms on stout spikes, like a vetch, or some such plant; and the red spider is so fond of the leaves, that few of our best gardeners dare venture to grow them. Trinidad is where they grow most; and most beautiful they are when the seeds are ripe, in little flat pods; the pods burst open, and the seeds hold on to the sides of the pods for a long time after; just as if on

purpose to show how young ladies might form them into ornaments. Our people call this plant the wild Liquorice; and the roots, in the West Indies, and all other hot countries, are nearly as good as our own cultivated Liquorice. The book name is *Abrus precatorius*. The first name means *elegant*, and the second means a *petition*, or *prayer*, and is taken from the fact of the aforesaid rosaries being made with the seeds. The seeds are eaten in Egypt, but are very indigestible. Now, as you are not such a giddy girl as Gertrude in the "Lamplighter" was, and as you will be sure to be as good a woman as she turned out to be, you will remember all this, and explain it to your young friends, for nothing seems so awkward as not to be able to tell the history of everything one receives from friends, relatives, and well-wishers, particularly if it belongs to any branch of Natural History.—D. B.]

OBTAINING EARLY ASPARAGUS.

"I have some old *Asparagus-beds* to take up this winter. Can I force the *roots*? I have a good pit, with a hot-water pipe through it; I have also plenty of stable manure. Will you, please, tell me the proper time to take up the *roots*, and the best way to treat them to get early Asparagus?—A. R. B."

[Never attempt to force such Asparagus as yours in pits heated by hot-water, as long as you have plenty of stable manure, which will force them so much better; with plenty of this, and good old plants, any one in the three kingdoms can have Asparagus to table, two or three times a week, from the first day of October till the first gathering in the open ground. Nothing is so easily forced as Asparagus, except, perhaps, the *Dicelytra spectabilis*. If the shoots of the latter were eatable, we could have them "in" with the Asparagus, on the 1st of October; and by the same process, namely, to cut down the stalks on the 5th or 6th of September, and to take up the roots on the 20th of September, with as large balls of earth as they would carry, to set the balls quite close together, over a slight hotbed of fresh dung, leaf-mould, or rotten tan, or spent mushroom-bed stuff, or very loose sandy earth in the absence of these; then to work in sufficient of the same stuff between the balls, and two or three inches above the balls; to water this gently with a rose-pot, to thrust a watch-stick in the centre of the bed, and to put on the lights, and shut them down close, and to keep them close down till the shoots begin to heave up the surface of the bed; then, in October, and mild weather, the glass might be off or nearly off all day, and air given all night. If the watch-stick is just comfortably warm to the hand, without being hot, that is sufficient for bottom-heat to Asparagus; if the bed should get too hot, poke a lot of holes in it down between the balls with a blunt stick, and put two canfuls of water into the holes, and that will chill the dung sufficiently to go on better. But as we go on into the winter, the Asparagus forcing-beds ought to be made of more worked manure, as for a Cucumber-bed, only not so much of it. The requisites are, sufficient warmth below to move the roots, and to allow of air being given all day and night; the least confined damp or unwholesome air after the shoots break through the surface will spoil their flavour. Old roots are of no use after being lifted for forcing.]

The plant you enclosed is what is sold and cultivated under the name of *Vitis velutina*, but whether it is a true Vine, or a *Cissus*, or what it is, few can decide. We do not know just now where it came from, but we shall sow the seeds from your berries, and tell you all about it some day.]

PERILLA JAPONICA, *alias* NANKINENSIS.—EUCNIDA BARTONIOIDES.—PAMPAS GRASS.

"I often buy, in the spring, packets of new flower-seeds, which I see advertised, and am often more dissatisfied than pleased with the result of my novelties. There is one new annual I got last spring, which I have never seen noticed in THE COTTAGE GARDENER, the *Perilla nankinensis*. It is described as a half-hardy annual. I sowed it in a slight hotbed in April, and planted the seedlings out in a mixed flower border as soon as the danger of frost was over; it grew luxuriantly, and reached from fifteen to eighteen inches

high, and has large, bronzy, purple-coloured leaves, which produce a very fine effect among other plants. Mr. Beaton certainly must never have seen it, or he would have come out with a chapter on it before this time. I think it a plant admirably adapted for producing a fine effect in that system of flower-gardening he writes so much about. (Mr. Beaton has "certainly" seen the *Perilla* in question, and you must be a forgetful reader, else you would have minded Mr. Beaton's "Chapter on it," this time two years (vol. XI, 78), but "effect" is not its part in a flower-garden, according to him, but a *contrast*. There is no "effect" in such plants as are neutrals, like this.)

"I have also tried *Eucnida bartonioides* as a pot-plant, with which I am highly pleased. I have it now in full bloom in the window." (So have we, and we can back you here.)

"Would the Pampas Grass (*Glycerium argenteum*) grow and flower in a high situation in Northumberland?" (Yes, it would grow there; but who knows if it will flower?)

"I would respectfully suggest that the papers you are now publishing on the British Ferns be continued weekly, instead of two in the month; as there are about sixty species, it will require nearly three years to complete them, at the rate you are publishing them, and makes it very tedious for reference when it is continued through so many volumes. The same suggestion will apply to "The Fruit and Fruit-Trees of Great Britain.—J. S." (When a book is written on Ferns, or Fruits, or any one subject, it is filled with that subject only, and those who are interested in that subject are the only purchasers; but a periodical cannot be devoted to one subject, or to one-and-twenty subjects; and such subjects as Ferns, for instance, can only claim a share of the space. Three years are not long enough to saturate the public mind with any one subject of even one-half the extent and interest as that about Ferns; therefore, the longer the subject about Ferns can be "kept alive" before the public, the better will the public taste be worked upon. However, the British Ferns will be completed in less than three years; or two either.)

SOWING ECCREMOCARPUS—CHRYSANTHEMUM SUCKERS.

"Can you inform me of the best mode of raising the *Eccremocarpus* from seed? Also, the name of the enclosed specimen, whether hardy, and if it may be left in the open border during winter? I find my house Chrysanthemums are surrounded by healthy, vigorous shoots; must they remain, or be removed?—ELIZA."

[The enclosed specimen was a *Mesembryanthemum*. It will not survive the winter out-of-doors. *Eccremocarpus* should be sown in the early spring, say February, in gentle heat. When strong enough, the seedlings to be potted off into small pots, and their growth encouraged. They will flower the same season. *Chrysanthemum* shoots, we presume suckers, may be topped in close.]

STOCKS, THEIR KINDS AND MANAGEMENT.

"I shall be much obliged by being told the best way to have Stocks in flower about next April and May, without glass. What is the difference between the German, Ten-week, Intermediate, and Brompton Stocks? Are they all hardy enough to stand out the winter without protection? Will they do best in pots, or planted out on a warm border, taken up in March, as they are required for flowering in pots? When is the best time to sow the seed? and how ought I to manage the plants when up?—R. S. E."

[You are too late with your query. Stocks, to flower in April or May, should be sown during the summer months, July, August, and September. The first sowing should be of the Brompton and Queen Stocks, which are biennials. The next two sowings should be the Ten-week. Moss's Intermediate is a garden variety between the Brompton and the Annual, or Ten-week Stock. The only difference between the *Brompton* and the *Ten-week* Stock is, that the first is a biennial, and the second an annual. The *Inter-*

mediate is more of an annual than a biennial, because, if sown in spring, it will flower the same year.

The *Queen Stock* is a biennial, and is distinguished from the *Brompton* by its flowers being produced on a single stem, that is, the stem does not branch; hence it is botanically named *Mathiola simplicicaulis* (Single-stemmed).

All Stocks are hardy enough to stand ordinary winters without protecting; even the annual species, if sown in the autumn. It is advisable, however, to keep a few in pots, sheltered in a cold frame. If required for a greenhouse, they should be potted in the autumn. They require badly in the spring. Your fourth question is already partly answered. Annual Stocks may be sown in March, to flower the same year. Sow them in pans under a frame, and transplant where they are to flower. Biennial Stocks sow in July, and transplant in August, in a sheltered place, to bloom the June following. For the management of Stocks see *THE COTTAGE GARDENER*, Vol. XIIth, page 138 and 177, where they are fully treated upon by Mr. Appleby.]

PLANTATION OF PINUSES.

"I am about to plant a few Firs on a rather elevated piece of ground (about three-quarters-of-an-acre in extent), on a clayey soil (the clay containing a good deal of sand); this I intend to have deeply trenched and properly drained. With respect to this, I wish to ask your advice on one or two points. I have been thinking of planting, for the permanent trees, *Pinus Austriaca* chiefly, but have heard doubts expressed as to whether this will attain to a *timber size* in our climate. Is there any reason to fear this? Secondly. I wish to ask what distance these permanent trees should be from each other. Would ten feet be too near? Thirdly. What would be the best tree to fill up with? I presume either the Scotch Fir, or the Spruce, or both mixed. The aspect of my intended plantation is s.w., and I am purposing to plant a row of *Pinus cembra* along the front. I suppose I ought not to put my plants in till this time twelvemonth.—J. J. M.—, *Tenbury*."

[You have been informed rightly, that *Pinus Austriaca* will not attain a timber size in our climate so quickly as others. The best species for your purpose and soil is the *Pinus excelsa*, which grows rapidly, yields a great quantity of turpentine, and produces excellent timber. It is besides that a very handsome tree, and is perfectly hardy. You should also plant a few of the *Pinus insignis* amongst your permanent trees. It is as hardy as the Scotch Fir, and is exceedingly handsome and distinct. The timber is excellent. Your arrangement of your permanent trees, therefore, should be in the following proportions. 10 *Pinus excelsa*; 2 *Pinus insignis*; 2 *Pinus Austriaca* (by way of trial); and 2 *Abies Douglassii*. These you may mix as your fancy directs. The distance between each two of these permanents should not be less than fifteen feet, which will allow a circumference of seven-and-a-half from the bole of each tree, every way, which is quite space little enough for them to produce large timber-trees. The *Pinus cembra*, being an upright-growing tree, you may plant at nine feet apart, to remain as permanent trees. Between them plant the *Hemlock Spruce*, kept well pruned in. Fill up between the other permanent trees, as you suggest, the common Scotch Pine, *Pinus sylvestris*, and the equally common Norway Spruce, *Abies excelsa*.

If your plot is drained and trenched now, you might with perfect safety plant it in February or March, but remember this point; do not plant in any case, or any kind of trees, more than three feet high, and these such trees as have been frequently transplanted.

Trees taken out of their nursery rows are very tender, and take two or three years to recover their removal, even if they all grow. You do not say whether the plot you are about to plant is high or low in situation. If the former, and unsheltered, your new trees should not exceed two feet in height, and your permanent trees should be securely staked till they are firmly established at the root. In a low situation, too, the trees would succeed better, and more quickly, if staked and well tied.]

CULTURE OF SAXEGOTHEA CONSPICUA, LARDIZABULA BITERNATA AND EUGENIA UGNI.

"Having purchased several plants, lately, which I cannot find in *THE COTTAGE GARDENERS' DICTIONARY*, will you be so good as to give me some directions as to their culture in the columns of your weekly journal; the plants are, *Saxegothea conspicua*, *Lardizabula biternata*, and *Eugenia ugni*.—AN OLD SUBSCRIBER."

[From all that we know of the *Lardizabula*, we would treat it as a twining plant from South America, requiring a rather warm greenhouse, and to be grown in peat and loam. The *Eugenia ugni* made more noise some time ago than it has done since. It was represented to be quite hardy, and sold for a high price, but the first severe winter cut it to the ground, and though many of the plants sprung again, it does not seem to do any good without the protection of a greenhouse, or a glass-covered wall. Loam and peat will grow it well. The *Saxegothea* is a coniferous tree, introduced by Messrs. Veitch, from the Andes of Patagonia, discovered there by Mr. Lobb, and has stood out several seasons uninjured. We forget how it stood last season. Had we a nice small plant of it, we would keep it in a cool greenhouse the first winter or two, and after planting it out, give it the protection of some open fir boughs in winter, until it became of some size.]

THINNING ASPARAGUS.

"T. P. M. is desirous to know how an Asparagus-bed, made in the winter of 1854, and sown in that spring, ought to be treated. The plants are, as far as the rows are concerned, at a proper distance. But *in* the rows themselves the plants are almost continuous. When, how, and to what extent, should thinning be effected?"

[We presume the bed was properly made for permanent Asparagus culture. In that case, with a three-pronged fork you may thin the plants now to a foot apart, if the plants you remove are not required. If they are required, then do not thin until next March, when, having another bed or beds made, you can at once insert there the plants thinned out. If you leave the present bed until the spring, remove about an inch of its surface-soil, put on a slight dressing of well-decayed dung, and cover it with the surface-soil previously taken up.]

GARDENERS AND THEIR EMPLOYERS.

"Being one the same calling to whom Mr. Appleby's advice is so freely given, I wish to return my best thanks for the same. Although I am too far gone to profit by it myself, I am sure it will be useful to some of the younger ones; but there is one great obstacle in the way of them; that is, after they have worked well all their young days, and gone through every branch of the profession, in hopes of getting a head-gardener's place, eight out of every ten are disappointed; because there are so few gentlemen that keep gardeners, now-a-days, but rather see their walks so covered with weeds that they can hardly get along them without falling down, and their lawns covered with Daisies and leaves, with a few miserable looking plants that have been grown under the Vines, because they will not allow a little more fuel to grow them in the proper place; therefore, I say, that it is almost useless for a young man to pay any premium to learn the gardening, unless he can be under-coachman as well, and learn to milk cows; then he may be sure to get a situation, such as are advertised in your paper, No. 353—"Wanted, by a clergyman in the country, a thorough out-door servant, as groom, and gardener, and able to milk; a married man without family. Unexceptionable character required." Or he may advertise till he is tired, and waste as much money as would keep him and his wife a week or two; and when he cannot wait any longer, because the winter is coming, he must take a situation, where he must be groom and gardener, milk cows, attend to pigs and poultry, and make himself generally useful; he will have a boy under him, and must furnish good characters from his last and previous situations; afterwards, if he chances to hear of a place, and applies for it, he is told that he will not suit, because he is not in regular practice.

"I conclude by saying, that unless we can persuade our employers to make some alteration for us in the right road, where is the use of being a gardener? If you think this worthy of publication you are at liberty to use it.—W. J., *Sunbury*."

[Your letter is written all in a wrong spirit. That there are places where sufficient help is not allowed, is too true. That there are places where the gardener has to fulfil various offices, is also true; but what have such places to do with the art of gardening, and the conduct of gardeners? We are truly the friends of gardeners; and all that thoroughly understand their business, and are good, steady, moral men, we are always ready to assist, as far as lies in our power, in getting good places. We think you quite out in your calculation, that for two gardeners that obtain good places there are eight that are disappointed. If a young man, such as Mr. Appleby has been advising, will be foolish, get married too young, have a family, and, in consequence, is obliged to take an inferior position, such as you describe, whose fault is it? Many gentlemen of limited income require such men, and give them as good wages as they can afford, and as there are always two to every bargain, the seller and the buyer, the seller of his labour and skill has no right to find fault with the buyer of it, if he, the seller, agrees to the bargain. We never met with a really clever, good gardener, in a place where he had to manage a garden, milk a cow, and render all the attentions which seem to offend you so much. If a gentleman were to engage a clever, talented man, without informing him that he would have to do other work than gardening, then the gardener would have a just right to complain, and every one would sympathize with him. The advertisement you refer to is perfectly open and fair. No man that applied for it has any right to complain if he accepted it. The duties he had to perform are clearly stated, and a good, clever gardener, if a sensible man, would not apply for such a place, unless necessity compelled him, and then his good sense would teach him that he had undertaken certain duties to perform, and it was clearly his duty, and interest, too, to discharge the duties faithfully and well. Finally, we dismiss this unpleasant subject, by advising, as Mr. Appleby has done, all young gardeners to wait patiently, increase their knowledge, and secure a good character for steadiness and integrity; and we pledge ourselves, that, sooner or later, such men will obtain comfortable, if not first-rate, situations.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

BIRMINGHAM. 11th to 14th of December. *Sec.*, J. Morgan, jun., Esq. Entries closed November 10th.

DURHAM AND NORTH YORKSHIRE, at Darlington, 6th and 7th of December. *Sec.*, J. Hodgson, Esq. Entries closed.

GLOUCESTERSHIRE AGRICULTURAL. At Cirencester, Dec. 6th. *Sec.* E. Trinder, Esq., Cirencester.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. *Sec.* R. Hawksley, jun., Esq., Southwell. Entries closed November 20th.

VALE OF AYLESBURY. January 2nd and 3rd. *Secs.* J. D. Muddiman, and Jas. Allen. Entries close December 20th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

It is part of the usefulness of a periodical devoted to any particular subject, that the complaints, wishes, and advice of all who are interested in it, come, as it were, to a focus in its office; and it is our duty, as well as our inclination, to make such use of such communications as shall conduce most to the welfare of the pursuit of which they treat. We confess to much respect for the wishes and advice, but it is always with pain we receive complaints. In all things where there is, and must be, a certain latitude allowed, there will continually be cases where both parties appear in the right. Not unfrequently we read one side, and enter deeply into the spirit of the remonstrance. The answer comes, and we alter our opinion; then remonstrance the second, so

strong, that, like the plaintiff who heard the counsel detailing his grievances, we had no idea before how great the injury, and how bad the treatment; and so we become, even to ourselves, a shuttlecock, continually driven from one to the other.

But we have now a communication from a working man, written in such an excellent spirit, and giving such good reasons, that we are disposed to make it the ground of these remarks.

Our correspondent is from the North, and, therefore, begins with a sound calculation of £. s. d. "Why," he asks, "at the Darlington Show, should all pens be charged alike at 2s. 6d. for entry, while the prizes are different? Spanish, Dorkings, Cochins, &c., prizes of £1 and 10s., while Bantams have but 10s. and 5s." We believe we speak the opinions of many committees, when we say, that the greatest encouragement must be given to those breeds which bring the largest number of pens, and they, certainly, are not Bantams. We believe, for many years they were not justly treated; they had the worst pens, and the lowest prizes; but the cup given at Anerley, and the increased prize lists for them everywhere, is fast putting them in a better position, and giving them the importance they deserve. But, like Moonies in Lancashire, Dorkings in Sussex and Surrey, and other birds in other districts, it may be these little gallinaceæ are the pets of some district. We will, therefore, let our correspondent speak.

"These spirited little pets are often kept and exhibited by the poor man, and great care and trouble there is in breeding these tiny little beauties, in consequence of the late period they have to be hatched to have them small. They also much deserve encouragement, as an instrument of softening and bringing into play the kinder sentiments of our nature among our pitmen. Bantams are, also, to the larger class of Poultry, what the Fell Black-faced sheep are to the Teviots(?). They will subsist and do well upon a situation affording a contracted supply of food, and so have their proper allotted place. These are often very profitable; for although the eggs are wee ones, yet these Bantams will, upon comparison to the food given, contest with any class the prize as profitable layers. Their eggs are rich-flavoured, and they, themselves, when upon the table, surpass even the Dorking for amount of flesh, plumpness on the breast, with delicateness and fineness of the whole."

Some assertions of our worthy correspondent may be doubted by those who prefer other breeds, and may, perhaps, be accounted for by the enthusiasm of a Bantam fancier; but no one will doubt that there is much truth in two of them. First, that Bantams have been ill-treated; next, that they exercise a humanizing influence. We will say a few words on each.

Although poultry has become a general pursuit, and shows *must* exist—because man wants excitement, and having once had it, will not give it up; also, because they afford an innocent and cheerful pursuit to many, whose opinions or tastes forbid others that have hitherto existed—yet it is too much to expect, that in the short time they have been in vogue they should have become perfect. Many that have been held have been bare experiments; straws thrown up, to show the way of the wind. Their projectors, under these circumstances, have been obliged to weigh their responsibility and liabilities most scrupulously; but when these exhibitions are fixed to take place annually, and have, as they will have, a balance in hand, then they will feel themselves justified in offering larger prizes. We question much whether it will ever be advisable to lower the amount for each pen. Every one should pay a clear profit to the undertaking; but we think Bantams are now sufficiently valuable to claim good prizes as a right. Good pens of Sebright easily make from four to eight

guineas the pen; Duck-wing Game are as valuable; and Black and White sell for more than Hambro's. The entries become every year more numerous, and we, therefore, hope that as large prizes will be offered for them as for others. But these must be matters for the consideration of committees, and they can only afford to be generous, just in proportion as they are supported by amateurs of all classes. A few years more must decide whether some classes must not be diminished in the prize lists, while others must increase. Those, then, interested in weak ones must support them; and lovers of Bantams may rest assured, if they will increase their numbers, the prizes will advance in a like ratio. We could name many shows where they amounted to eight pounds for the different classes, where the entries amounted only to between three and four pounds, and the birds were not worth more. Where things are brought to a close calculation, it will be seen such entries will not cause or promote liberality.

We go fully into the second reason assigned for more encouragement, and we heartily agree with our correspondent, that it has a good effect on a rugged nature to be fond of these "wee pets." Most valuable testimony was borne to this fact by that active philanthropist, Mr. C. Sturge, of Birmingham, who has found them valuable auxiliaries in his noble work of reclaiming criminal boys. We believe it is an admitted fact, that the cottager who takes prizes for a good garden, is almost always an industrious man, good husband and father, and useful member of society. It is not alone that the taker of a prize is by the fact raised above his fellows, and has a stake in hand, but it is an incentive to greater exertion. No nature is so stubborn as that which stands alone, fearing nothing, and loving nothing, and having nothing to look down upon and protect; and yet in that nature there is a germ of kindness—it is like a hidden train of gunpowder buried in the earth, and all alike dark; but the spark once applied, the fire runs through the whole extent of the train. Just so a man—who has been brought up to love nothing, and has, at last, believed himself uncared for—may have his first sensibilities awakened by a pen of birds, and the love he will feel for them will soon extend to higher and more legitimate objects. This must raise him in the social scale. We go, then, heart in hand with our correspondent, and wish to offer some suggestion which may meet his views, and extend the usefulness of his pursuit. We would, then, in all the districts where these birds are kept by miners, and others, who cannot afford to pay the usual entries, advise a separate class, or allow the "various class," coming after Sebrights, Game, Black and White, to be entered at a low, almost a nominal, sum. Where there are Cottagers' classes this will be unnecessary, as they can be entered in them.

We assure "Wear-dale" and his class, that our sympathies are with them, and we shall be glad to hear from him again.

WILTS EXHIBITION OF POULTRY

WARMINSTER, NOVEMBER 14th, 1855.

JUDGE.—H. Hinxman, Esq., Durnford House.

COCHIN-CHINA (Cinnamon and Buff).—3. First, Mr. Thomas Eacott, Devizes. 2. Second, Mr. Henry Woodcock, Fugglestone.

CHICKEN OF 1855.—3. First, Mrs. Henry Fookes, Whitchurch. 1. Second, Mr. T. Keable, Frowdefield Farm, Devizes.

COCHIN-CHINA (Black or White).—1. First, Mr. Henry Woodcock, Fugglestone.

CHICKEN OF 1855.—2. First, Mr. Stephen Mills, Elston.

MALAY.—3. First, Mr. John James Fox, Devizes.

CHICKEN OF 1855.—2. First, Mr. John James Fox, Devizes. 3. Second, Mr. Thomas Lyne, Malmesbury. Highly Commended.—4. Mr. Richard Bedford, Warminster. 5. Mr. John Goodman, Warminster.

SPANISH.—1. First, Mr. Philip Cother, Sarum. 3. Second, Mr. William Plummer, Brislington.

CHICKEN OF 1855.—1. First, Mr. Philip Cother, Salisbury. 9. Second, Mr. William Plummer, Brislington.

DORKING (Coloured).—4. First, Mrs. Henry Fookes, Whitchurch. 3. Second, Mr. Thomas Pain, Laverstock, Sarum. Highly Commended.

—2. Mr. Christopher Smith, Durnford, Sarum. Commended.—1. Mr. Thos. C. Millard, Monckton Deverill.

CHICKEN OF 1855.—1. First, Mr. Christopher Smith, Durnford. 6. Second, Mr. Henry Woodcock, Fugglestone. Commended.—5. Mr. James Rawlence, Bulbridge. 9. Mr. Thomas Pain, Laverstock.

DORKING.—Chickens of 1855.—1. First, Mrs. Henry Fookes, Whitchurch.

GAME (Any variety).—1. First, Mr. John James Fox, Devizes. 2. Second, Mr. Thomas Pain, Laverstock, Sarum. Commended.—3. Mr. Robert Merrett, Market Lavington.

CHICKEN OF 1855.—1. First, Mr. John James Fox, Devizes. 3. Second, Mrs. Henry Fookes, Whitchurch.

POLAND (Any variety).—1. First, Mr. Thomas Richards, Westbury. 2. Second, Mr. Thomas Richards, Westbury. Commended.—3. Mr. John James Fox, Devizes.

CHICKEN OF 1855.—1. First, Mr. Joseph Henry Bennett, Odd Down. 2. Second, Mr. Joseph Henry Bennett, Odd Downs. Commended.—5. Mr. John James Fox, Devizes.

HAMBURG (Golden-spangled).—3. First, Rev. Charles Down, Semington. 4. Second, Mr. James E. Pardey, Salisbury.

CHICKEN OF 1855.—4. First, Rev. Charles Down, Semington. 3. Second, Mr. Charles Templer, Melksham. Commended.—5. Mr. James E. Pardey, Sarum.

HAMBURG (Silver-spangled).—1. First, Mr. Henry Templer, Bridport.

CHICKEN OF 1855.—1. First, Mr. James Lush, Warminster. 11. Second, Mr. John James Fox, Devizes. Commended.—2. Mr. Thomas Millard, Monckton Deverill. 5. Mr. Philip Cother, Sarum.

ANY OTHER SORT (Not pure bred).—1. First, Mr. Joshua Whittaker, Bratton. 9. First, Mrs. Henry Fookes, Whitchurch. (Brahma Pootra.) 5. Second, Mr. Henry Smith.

CHICKEN OF 1855.—1. First, Mr. Joshua Whittaker, Bratton. 2. Second, Mr. Joshua Whittaker, Bratton.

BANTAM (Gold or Silver-laced).—2. First, Mr. John James Fox, Devizes.

BANTAM (Any variety).—4. First, Mr. John James Fox, Devizes. 8. Second, Mr. Thomas Pain, Laverstock. Commended.—1. Mr. Thomas Parham, Brixton Deverill.

TURKEYS.—2. First, Mr. Nathaniel Barton, Corsley. 5. Second, Mr. Edward Jeffereys, Hill Deverill. Highly Commended.—1. Mr. Samuel Jeffereys, Maiden Bradley. Commended.—9. Mr. John Fill Hart, Fisherton Delamere.

GESE.—4. First, Mrs. Henry Fookes, Whitchurch. 2. Second, Mr. Moses Glass, Warminster.

DUCKS (Rouen).—2. First and Second, Mrs. Henry Fookes, Whitchurch.

DUCKS (White Aylesbury).—6. First, Mr. William Higgins, Chippenham. 4. Second, Mr. John Dawkins, Sarum.

DUCKS (Any other variety).—11. First, Mr. Henry Woodcock, Fugglestone. 13. Second, Mr. Robert Coles, Middleton, Norton Bavant. Commended.—2. Mr. Thomas Millard, Monckton Deverill. 5. Mr. John F. Goodman, Warminster.

TAUNTON AND SOMERSET POULTRY EXHIBITION.

November, 23rd and 24th, 1855.

JUDGE.—Edward Hewett, Esq., Sparkbrook, Birmingham.

SPANISH.—3. First, Daniel Parsley, Rock Cottage, Stapleton, near Bristol. 2. Second, Mrs. B. J. Ford, Ide, near Exeter.

CHICKEN OF 1855.—19. First, Edward H. G. Strange, Ampthill, Beds. 8. Second, Daniel Parsley, Rock Cottage. 9. Third, Daniel Parsley, Rock Cottage. Highly Commended.—11. J. R. Rodbard, Esq., Aldwick Court. Commended.—15. James Newick, Esq., Hinton St. George. 16. Mr. Thomas Twose, Bridgwater. (A very good class.)

DORKING (Coloured).—22. First, A. H. Leybourne Popham, Esq., Purley Park, Reading. 21. Second, Fred. A. Philbrick, Colchester. Highly Commended.—26. Fred. Osborne, Esq., Colchester. 28. Thomas McCann, Esq., Graham House, Malvern. 30. W. G. K. Breavington, Vicarage Farm, Hounslow.

CHICKEN OF 1855.—50. First, Mr. R. Loder, The Beeches, Crawley, Sussex. 45. Second, Wm. Bromley, 19, Smithfield, Birmingham. Highly Commended.—31. Wm. Belcher, Esq., Abingdon. 41. J. R. Rodbard, Esq., Aldwick Court, Langford. 47. Mr. Robt. Wright, Moor Farm, Taunton. 49. Mr. J. Nichols, Pyrland, Taunton. 57. George Smith Fox, Esq., The Court, Wellington. Commended.—33. Lord Hinton, Hinton St. George. 56. Mr. Roht. Fookes, Milton Abbas, Blandford. (The best class in the whole Exhibition.)

DORKING (White).—67. First, Charles Edwards, Esq., Brockley Court, Langford. 68. Second, W. G. K. Breavington, Esq., Hounslow.

CHICKEN OF 1855.—71. First, Mrs. Fookes, Whitchurch, Blandford. 73. Second, Mrs. Mills, Bisterne. Commended.—Fras. J. Coleridge, Esq., Manor House, Ottery St. Mary, Devon. (A superior class.)

COCHIN CHINA (Cinnamon and Buff).—81. First, Mr. James Fred. Crane, Tolpuddle, near Dorchester. 80. Second, Captain W. H. Snell, St. Swithin's-lane, London. Highly Commended.—75. Henry Lucas, Been, Esq., Aschott, near Glastonbury.

CHICKEN OF 1855.—91. First, F. G. Smith Stevens, Hemyock, near Wellington. 84. Second, Mr. Parkin Jones, High-street, Fullham. Highly Commended.—90. J. R. Rodbard, Esq., Aldwick Court. 96. Mrs. Fookes, Whitchurch, Blandford.

COCHIN CHINA (Grouse and Partridge Feathered).—99. First, Rev. G. F. Hodson, North Petherton. 97. Second, Mrs. Ide, near Exeter. (An unusually good class.)

CHICKEN OF 1855.—101. First and Second, Rev. G. F. Hodson, North Petherton. Highly Commended.—104. Mr. Broughton Kingdon, Upper Paul-street, Exeter. Commended.—105. Thomas Bridge, Esq., Croydon. (A very good competition.)

COCHIN CHINA.—(White or Black).—106. First, Capt. W. H. Snell, St. Swithin's-lane, London. 107. Second, Rev. J. H. Gandy, Old Cleeve, near Taunton.

CHICKEN OF 1855.—109. First, J. R. Rodbard, Esq., Aldwick Court. 111. Second, Rev. G. F. Hodson, North Petherton.

MALAYS.—120. First, John James Fox, Esq., Devizes. 118. Second, Mr. William Lort, Great Heath, near Tenbury. Highly Commended.—116. J. Buncombe, Esq., Wellington. 119. Capt. Henry Adney, Lympstone, Devon.

CHICKENS OF 1855.—129. First, Mr. James Leighton, 183. High-street, Cheltenham. 121. Second, Rev. Thomas Lyon Fellowes, Beighton Rectory, Acle, Norfolk. Commended.—125. Charles Balance, Esq., Taunton.

GAME (Blacks, Brassy-winged, Black-breasted and others Red).—132. First, J. R. Rodbard, Esq., Aldwick Court. 136. Second, Mr. James Monsey, Thorne Lane, Norwich. Highly Commended.—Charles Edwards, Esq., Brockley Court, Nailsea. Commended.—133. Mr. James Crane, jun., Tolpuddle, near Dorchester.

CHICKEN OF 1855.—144. Rev. Thomas Lyn Fellowes, Acle, Norfolk. 146. Second, Mr. James Monsey, Thorne Lane, Norwich. Highly Commended.—137. William Buncombe, Esq., Taunton. 147. Rev. G. S. Cruwys, Cruwys Morchard, Tiverton. Commended.—George Smith Fox, Esq., The Court, Wellington. (A most excellent class.)

GAME (Duckwings, Greys, and Blues).—152. First, Mr. James Monsey, Thorne Lane, Norwich. 151. Second, John J. S. Fox, Esq., Devizes.

CHICKEN OF 1855.—159. First, Mr. James Monsey, Thorne Lane, Norwich. 158. Second, Mr. F. T. Trehele Wyatt, Modbury, Devon. Highly Commended.—161. Josiah B. Chune, Esq., Coalbrookdale. Commended.—154. William Buncombe, Esq., Taunton.

GAME (White Piles, and any other variety).—163. Second, Mr. James Monsey, Thorne-lane, Norwich. First prize withheld.

CHICKEN OF 1855.—165. First, Mr. James Monsey, Thorne-lane, Norwich. 164. Second, John Charles Cutcliffe, Esq., The Grove, Colyton, Devon.

GOLD PENCILLED HAMBURGH.—173. First, Josiah B. Chune, Esq., Coalbrookdale. 168. Second, John Marshall, Esq., Belmont, Taunton.

CHICKEN OF 1855.—177. First, John Marshall, Esq., Belmont, Taunton. 182. Second, Dr. Rogers, Honiton. Commended.—183. Miss Patteson, Feniton-court, Honiton.

GOLD SPANGLED HAMBURGH.—186. First, Mr. James Newick, Hinton St. George. 188. Second, Rev. Charles J. Down, Semington, near Chippenham.

CHICKEN OF 1855.—196. First, Henry Thomson, Esq., Market-street, Windsor. 195. Second, Charles Edward Coleridge, Esq., Eton College.

SILVER PENCILLED HAMBURGH.—198. Second, Mrs. Mills, Bisterne First prize withheld.

CHICKEN OF 1855.—202. First, Edward Archer, Malvern. 199. Second, Mrs. Ford, Ide, near Exeter. Commended.—201. W. O. Meade King, Esq., Walford, near Taunton.

SILVER-SPANGLED HAMBURGH.—207. First, James Newick, Esq., Hinton St. George. Second, Prize withheld.

CHICKEN OF 1855.—213. First, Dr. Rogers, Honiton. 209. Second, Rev. H. K. Venn, Honiton. Highly Commended.—212. Mr. Robert Fookes, Milton Abbas, Blandford. Commended.—210. James Newick, Hinton St. George.

POLAND FOWL (Black with White Crests).—Prizes withheld.

CHICKEN OF 1855.—218. First, Edward W. Haslewood, Bridgnorth. 219. Second, George Smith Fox, Esq., Wellington.

POLAND (Golden).—224. First and Second, Robert H. Bush, Esq., Litfield house, Clifton.

CHICKEN OF 1855.—233. First, Mrs. Mills, Bisterne, Dorset. 229. Second, John James Fox, Esq., Devizes.

POLAND (Silver).—241. First, W. G. K. Breavington, Hounslow. 235. Second, Edward W. Haslewood, Bridgnorth. Commended.—236. Mr. J. F. Mortimer, Mill-street, Plymouth. 237. J. Buncombe, Esq., Wellington. 238. Rev. J. H. Gandy, Old Cleeve, Taunton. (A most excellent class.)

CHICKEN OF 1855.—246. First and Second, W. G. K. Breavington, Esq., Hounslow.

ANY OTHER VARIETY NOT COMPRISEN IN THE BEFORE-MENTIONED CLASSES.—248. First, Miss A. Brauford, Puddavin, Totness. (Brahma Pootra). 261. First, Mrs. Mills, Bisterne. (White Polands.) 253. Second, J. Marshall, Esq., Taunton. (Andalusian.) Highly Commended.—263. E. W. Haslewood, Bridgnorth. (White Polands.) Commended.—254. C. Coles, Esq., West-street, Fareham, Hants. (Andalusian.) 255. W. Hugo, Esq., Mount Radford, Exeter. (Andalusian.) (A very good competition.)

BANTAMS (Gold-laced).—278. First, Matthew Leno, jun., Esq., Harpenden, Herts. 277. Second, Mr. Cooper, Casteels, Guildford. Highly Commended.—274. Rev. G. S. Cruwys, Cruwys Morchard, near Tiverton. Commended.—269. Rev. G. F. Hodgson, North Petherton. 275. Mr. Thomas Porch, jun., 34, Milk-street, Bristol.

BANTAMS (Silver-laced).—288. First, Matthew Leno, jun., Esq., Harpenden. 286. Second, Mr. Cooper, Casteels, Guildford. Highly Commended.—281. Mr. Harry Wildman, 101, High-street, Birmingham. Commended.—282. Rev. G. F. Hodson, North Petherton.

BANTAMS (Black).—297. First, Rev. G. S. Cruwys, Cruwys Morchard. 290. Second, F. G. Dutton, Esq., Lydiard, Swindon. Highly Commended.—291. J. R., Rodbard, Esq., Aldwick Court.

BANTAMS (White).—300. First, Rev. G. F. Hodson, North Petherton. 302. Second, Miss E. King, Pyrland hall, near Taunton.

TURKEYS (Of any age).—313. First, Charles Edwards, Esq., Brockley Court, Bristol. 309. Second, J. R. Rodbard, Esq., Aldwick Court, Bristol. Highly Commended.—312. Miss King, Pyrland Hall, Taunton. 314. George Turner, Esq. Barton, near Exeter (Wild American).

GESE (Of any age).—316. First, Mr. Thomas Valentine, Preston Farm, Upottery. 315. Second, J. R. Rodbard, Esq., Aldwick Court (Toulouse). Highly Commended.—317. Miss King, Pyrland Hall, Taunton (China).

DUCKS (Aylesbury).—318. First, Mrs. Ford, Ide, near Exeter. 323. Second, J. R. Rodbard, Esq., Aldwick Court. Highly Commended.—327. Mr. Harry Wildman, 101, High-Street, Birmingham. 334. Rev. J. H. Gandy, Old Cleeve. Commended.—322. Henry Lucas Bean, Esq., Aschott, Glastonbury. 325. Mr. William Lamb, Purton, Swindon. (A first rate competition.)

DUCKS (Rouen).—342. First, Charles Ballance, Esq., Taunton. 339.

Second, Rev. G. F. Hodson, North Petherton. Highly Commended.—338. T. R. Rodbard, Esq., Aldwick Court. Commended.—344. Mr. W. G. K. Breavington, Esq., Hounslow.

DUCKS (Any other variety).—350. First, Lord Hinton, Hinton St. George (white call.) 352. Second, John Marshal, Esq., Belmont, Taunton (Buenos Ayres). Highly Commended.—355. Rev. Cecil Smith, Lydeard House, Taunton (wild ducks). Commended.—356. Rev. J. H. Gandy, Old Cleeve (call ducks). Highly Commended.—358. Dr. Gwynne, Pitminster, near Taunton (Tunisian).

Winner of the Silver Cup given by Sir P. P. F. P. Acland—Rev. G. F. Hodson.

LONDON MARKETS.—NOVEMBER 26TH.

COVENT GARDEN.

The quantity of rough Vegetables brought to market has sensibly diminished this week, with the exception of Potatoes, of which the supply is abundant and quality good. Fruit quite sufficient for the demand.

FRUIT.			
Apples, kitchen, per bushel	2s. to 4s.	Peas, per bushel	3s. ,, 5s.
" dessert	4s. ,, 6s.	Carrots, per bunch ..	4d. ,, 6d.
Pears	4s. ,, 8s.	Parsnips, per doz....	6d. ,, 9d.
Peaches, per doz....	5s. ,, 8s.	Beet, per doz.	1s. ,, 1s. 6d.
Nectarines, per doz..	—	Potatoes, per cwt. ..	3s. ,, 6s.
Plums, per sieve	4s. ,, 8s.	Turnips, per bunch ..	2d. ,, 3d.
Pine-apples, per lb....	4s. ,, 6s.	Onions, young, per bunch	1d. ,, 2d.
Grapes, per lb.....	1s. ,, 6s.	Leeks, per bunch	2d. ,, 3d.
Foreign Melons, each	2s. ,, 4s.	Garlic, per lb.	6d. ,, 8d.
Figs	—	Shallots, per lb.	4d. ,, 6d.
Gooseberries, per qt.	—	Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Currants	—	Lettuce, Cos, per score	6d. ,, 1s. 6d.
Raspberries	—	" Cabbage....	6d. ,, 8d.
Strawberries, per pottle	—	Endive, per score ..	1s. ,, 1s. 6d.
Oranges, per 100	4s. ,, 10s.	Celery, per bunch....	8d. ,, 1s.
Lemons	6s. ,, 12s.	Radishes, Turnip, per dozen bunches ..	1s. ,, 1s. 6d.
Almonds, per lb.....	2s. ,, —	Water Cresses, per dozen bunches	6d. ,, 9d.
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.	Small Salad, per punnet.....	2d. ,, 3d.
" Cobs, ditto ..	60s. ,, 70s.	Artichokes, each	3d. ,, 6d.
" Barcelona, per bushel.....	20s. ,, 22s.	Asparagus, per bundle	—
Nuts, Brazil, per bushel.....	12s. ,, 14s.	Sea-kale, per punnet	—
Walnuts, per 1000 ..	9s. ,, 12s.	Rhubarb, per bundle	—
Chestnuts	—	Cucumbers, each	3d. ,, 8d.
VEGETABLES.		Vegetable Marrow, per dozen	6d. ,, 1s.
Cabbages, per doz. ..	9d. to 1s.	Tomatoes, per punnet	1s. ,, 2s. 6d.
" Red, per doz.	2s. ,, 4s.	Mushrooms, per pottle	1s. 6d. ,, 2s.
Cauliflowers, per doz.	2s. ,, 4s.	HERBS.	
Broccoli	1s. ,, 2s.	Basil, per bunch	4d. to 6d.
Savoy.....	—	Marjoram, per bunch	6d. ,, 9d.
Greens, per dozen bunches	2s. ,, 3s.	Fennel, per bunch ..	2d. ,, 3d.
Spinach, per sieve....	1s. ,, 2s.	Savory, per bunch ..	2d. ,, 3d.
Beans	—	Thyme, per bunch ..	2d. ,, 3d.
French Beans, per half sieve	—	Parsley, per bunch ..	2d. ,, 3d.
Scarlet Runners ..	1s. 6d. ,, 3s.	Mint, per bunch	2d. ,, 4d.
WHEAT.		PEAS.	
Kent and Essex, red, per qr.....	87s. to 89s.	Boiling, per qr.....	53s. to 56s.
Ditto, white	90s. ,, 96s.	Common.....	43s. ,, 45s.
Norfolk and Suffolk.	78s. ,, 80s.	Grey.....	48s. ,, 50s.
Dantzic	92s. ,, 96s.	Maple	48s. ,, 50s.
Rostock	81s. ,, 92s.	SEEDS.	
Odessa	73s. ,, 76s.	Turnip, White, per bushel	—
American	92s. ,, 96s.	Swede	—
BARLEY.		Rape	84s. ,, 86s.
Malting	45s. to 49s.	Linseed, sowing, qr..	80s. ,, 84s.
Grinding and Distilling	41s. ,, 43s.	" crushing ..	70s. ,, 72s.
Chevalier	45s. ,, 49s.	Clover, English, redcwt	60s. ,, 68s.
OATS.		" Foreign do.	52s. ,, 57s.
Scotch, feed	34s. to 36s.	" White	68s. ,, 73s.
English	26s. ,, 27s.	Trefoil.....	28s. ,, 32s.
Irish	30s. ,, 32s.	Rye, per qr.....	52s. ,, 54s.
Dutch Broo	29s. ,, 30s.	Tares	46s. ,, 52s.
Danish	30s. ,, 32s.	" Winter, bushel....	8s. ,, 9s.
Russian	26s. ,, 29s.	Canary, per qr.....	64s. ,, 72s.
BEANS.		Hemp	54s. ,, 57s.
Harrow	52s. to 56s.	Linseed Cake, per ton.....	£11 to £12 10s.
Pigeon	54s. ,, 56s.	Rape Cake ..	£6 10s. ,, £6 15s.
Tick.....	50s. ,, 52s.	Indian Corn	47s. ,, 50s.

HOPS.

BOROUGH MARKET, FRIDAY, Nov. 23.—The Hop Duty for the present year has been officially announced at the unprecedented amount of £398,635 6s. 5³d. Our market continues heavy, and there is but little doing, except in the finest samples, which have now become limited in quantity. Brown and inferior qualities can be bought on lower terms. Mid. and East Kents, 70s. 90s. to 112s.; Weald of Kents, 60s. 80s. to 90s.; Sussex Pockets, 50s. 75s. to 84s.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.	Meadow Hay, new 95s. to 120s.	
Clover, new	120s. „ 135s.	Rowan	80s. „ 90s.
Ditto, 2nd cut	90s. „ 140s.	Straw, flail	30s. „ 36s.
Meadow Hay	90s. „ 130s.	Ditto, machine	28s. „ 30s.

POTATO.

SOUTHWARK WATERSIDE.—Nov. 19.—The aggregate arrivals have been large, the bulk by rail. About twelve cargoes of York and Scotch goods have reached the market since our last, and we are happy to observe a marked improvement in the condition of the later shipments. The heavy supply and want of condition in some parcels has forced down our market, especially for secondary qualities. Kent and Essex Regents, 100s. to 0s.; ditto Shaws, 85s. to 90s.; York Regents, 100s. to 110s.; Lincolnshire Regents, 90s. to 100s.; Wisbeach and Cambridge Regents, 90s. to 100s.; Bedford Regents, 95s. to 105s.; ditto Shaws, 0s. to 0s.; Norfolk Regents, 85s. to 95s.; ditto Whites, 0s.; Scotch Regents (East Lothian), 90s. to 100s.; ditto (Red Mould), 110s. to 0s.; ditto (Perth and Fife), 90s. to 95s.; ditto (North Country), 90s.; Orkney Reds (East Lothian, nominal), 95s. to 0s.; ditto ditto (Red Mould, nominal), 100s.; Scotch Cup (Perth and Fife, nominal), 90s. to 0s.; ditto (North Country, nominal), 85s. to 90s.; Irish Kemps and Clusters, 85s. to 0s.; ditto White Rocks, 85s.; ditto common Whites, 80s. per ton.

MEAT.

Beef, inferior, per 8lbs.	3s. 4d. to 3s. 8d.	Mutton, middling 3s. 10d. to 4s. 4d.	
Do. middling	3s. 10d. to 4s.	Do. prime	4s. 6d. to 4s. 10d.
Do. prime	4s. 2d. to 4s. 4d.	Veal	3s. 10d. to 4s. 10d.
Mutton, inferior 3s. 4d. to 3s. 8d.		Pork, large	3s. 8d. to 4s.
		Ditto, small....	4s. 4d. to 5s. 4d.

POULTRY.

There is still a large supply of everything, and the demand for it is unusually small.

Large Fowls.. 4s. 6d. to 6s. each.	Teal	9s. to 10s. each.
Smaller do..... 3s. to 4s. „	Woodcock	3s. to 3s. 6d. „
Chicken .. 1s. 9d. to 2s. 6d. „	Snipe 1s. 3d. to 1s. 6d. „	
Geese	Pigeons	8d. to 9d. „
Ducks 2s. 9d. to 3s. 3d. „	Larks, per doz.....	10d. to 1s. „
Pheasants 2s. 9d. to 3s. 3d. „	Rabbits .. 1s. 4d. to 1s. 5d. „	
Partridges .. 1s. 9d. to 2s. „	Wild do.	10d. to 1s. „
Grouse	Cock Turkeys ..	9s. to 12s. „
Hares	Hen do.	6s. to 7s. „
Wild Duck 2s. 3d. to 2s. 6d. „		

PROVISIONS.

BUTTER.—Cwt.		CHEESE.—Cwt.	
Dorset, fine	104s. to 108s.	Cheshire, fine	74s. to 90s.
Do. middling.....	90s. „ 96s.	Gloucestershire, dble.	70s. „ 76s.
Fresh, per doz. lbs.	12s. „ 13s.	Ditto, single	60s. „ 74s.
Friesland	103s. „ 112s.	Somerset.....	70s. „ 76s.
Kiel	94s. „ 95s.	Wilt, loaf	68s. „ 78s.
Carlton	102s. „ 106s.	Ditto, double.....	72s. „ 78s.
Waterford	98s. „ 102s.	Ditto, thin	54s. „ 64s.
Cork	98s. „ 102s.	Ditto, pines	72s. „ —
Limerick.....	100s. „ 102s.	Berkeley, thin	62s. „ 66s.
Sligo	94s. „ 102s.		
BACON.—Cwt.		HAMS.—Cwt.	
Wiltshire, dried ..	80s. to 84s.	York, new	80s. to 90s.
Waterford	74s. „ 76s.	Westmoreland.....	76s. „ 80s.
		Irish.....	74s. „ 84s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11³d, the 4lb. loaf, but in other places the bakers are selling the best bread at 9³d. while in the cheap neighbourhoods they profess to sell at 8³d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. ,, 1s. 2d.
Ditto Tegs and		Leicester fleeces...	1s. ,, 1s. 1 ³ d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hog-		Combing skins ..	10 ³ d. to 1s. 1d.
gets	1s. 3d. to 1s. 3 ¹ d.	Flannel wool..	1s. 1d. to 1s. 2 ³ d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

SPINACH TASTING EARTHY (T. L. F.).—Spinach grown rapidly in very rich soil ought not to have this taste. The cook, probably, does not wash it cleanly, nor pick off all the stalks. In cooking, its own juice and a little cream is all the moisture required.

TREE SEEDS (A Subscriber).—Sow your Hawthorn and Privet Berries, Hazel Nuts, Acorns, and Ash Keys, in March.

FRUIT-TREES (T. J.).—We cannot recommend tradesmen. Write to any or all nurserymen advertising in our pages, and tell them what you require, and ask their prices.

STRAWBERRIES (Cynthia).—Mr. Myatt, nurseryman, Deptford, will give you all the information you require. Leave your *Holly hedge* alone, and give it a little old, thoroughly-decayed dung in March, just forked in slightly about the roots.

MILDEW ON VINES.—I find that correspondent “S. T.,” notices what I said respecting mildewed Vines, in THE COTTAGE GARDENER for October 16th. But he does not seem to be a practical gardener, and I can only request him to read more carefully, before he finds fault. He signs from Norfolk, and states that “good fruit is little known to many.” If he means in Norfolk, he is certainly much mistaken, for Grape-growing is as well understood here as in any other part of the kingdom.—J. WIGHTON.

WATER (An Old Subscriber).—We should think your well water very hard; but such terms as “very much,” and “very little,” are too indefinite for us to form a reliable opinion. Rain water may always be caught from a house-roof sufficient for greenhouse plants, and it is the best.

ANERLEY SHOW (Cock Pheasant).—We decline further communications on this subject.

NAMES OF FERNS (M. W.).—1. *Microlepia polypodioides*? 2. *Aspidium coreaceum*? 3. *Adiantum formosum*. 4. *Doodia media*. 5. *Asplenium viviparum*. We take this to be the Fennel Fern, *Darea feniculacea*. 6. *Doodia aspera*. 7. *Doodia caudata*. 8. *Nephrolepis tuberosa*? 9. *Adiantum cuneatum*, 10. *Nephrolepis pectinata*?

NAMES OF FRUITS (Tuam).—If all the fruit collections in Britain were as correctly named as yours is, we should have little trouble about nomenclature; but your Brown Beurré is *Beurre Diel*, and your Bergamotte Cadette is *Fondante d'Automne*.

VINERY (Shropshire Union Railway).—There is no doubt but you may put your house to the purposes you propose, but just recollect, first, that you cannot grow good Grapes at all early, and good greenhouse plants at the same time. You would see, by a late article, that you might make a greenhouse a repository for plants in winter, and a vinery in summer. Secondly. Provided the roof has a suitable elevation, you might devote it entirely to Grapes, Peaches, Figs, &c., in pots, but you would require to keep your Peaches at one end, and to have them set by the time your Vines were breaking. Thirdly. With good skill you might have a Vine up the roof, every four or five feet, and then have fruiting plants in pots or tubs beneath; but these will succeed just in proportion to the light that reaches them. Were your Vines some three feet or so apart on the roof, nothing would succeed beneath them, after they were in full foliage; before that time you might succeed with Strawberries, French Beans, &c. In such a house, we have grown all the things specified above, and also Melons and Cucumbers, in open spaces in summer, but so many things together require considerable nicety. We do not much like the remains of the horse in the Vine-border, but would rather have preferred his bones broken small, though most likely all will be well decomposed before the roots get to it. Hot-water is a very simple affair altogether, but while we are obliged by so good an account of your success, we also feel gratified in the being able to advise any one not quite so fortunate.

LESCHENAULTIA INTERMEDIA (W. D.).—If it has got into bad order it is difficult of recovery, if the plant is at all old. Treat it much as you would a Heath. We will say more about it by-and-by. In the meantime, these are the leading points. Air, when outside temperature above 40°; an open situation; and no more water than it demands.

EPACRIS NOT FLOWERING (J. M.).—We cannot say what was the cause by your description. The treatment was right, and such as you may pursue. In general, when the shoots are any length, it is the points that are barren of flowers. Are you sure that the stems you speak of are of last summer's growth, or is it merely the flowering-points? We have known plants, forced into fine growth, deficient in bloom, owing to the wood not being properly exposed and matured; but, in that case, the upper part of the stems had no flowers.


NAME OF PLANT (Rev. R. M. Evans).—*Saxifraga crassifolia*, a very desirable plant for the rockery.

NAMES OF FERNS (A Constant Subscriber).—Your specimens are too imperfect for us to be certain about any. 1. *Woodwardia radicans*? 2. *Cystopteris dentata*? 3. *Cystopteris Dickiana*? 4. *Polypodium calcarium*.

NAMES OF FRUIT (D. T. K.).—1. Beurré Diel. 2. Black Worcester. 4. Althorpe Crassann. 5. Nelis d'Hiver. 6. Easter Beurré. 7. Haeon's Incomparable. 8. Colmar. 9. Beurré de Rance. 10. Beurré Diel. 11. Quite rotten. 12. Napoléon. 14. Ne plus Meuris. 15. Nelis d'Hiver. 16. Uvedale's St. Germain. 17. Crassann. 18. Scems Gansel's Bergamot from a standard. APPLES.—1. London Pippin. 4. Yellow Ingestric. 5. Court Pendu Plat. 7. Mitchelson's Seedling. 9. Braddeck's Nonpareil. 13. Manx Codlin. 16. Blenheim Pippin. 18. Alfreton. The Nut is the *Corylus Columna*, or Constantinople Nut.

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WEEKLY CALENDAR.

D M	D W	DECEMBER 4—10, 1855.	WEATHER NEAR LONDON IN 1853.					Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.							
4	TU	December Moth.	30.035—29.894	50—38	W.	—	50 a 7	51 a 3	1 55	25	9 43	338	
5	W	Yellow-line Quaker Moth.	29.569—28.318	51—32	S.W.	04	51	51	3 7	26	9 19	339	
6	TH	Incomplete Moth.	29.656—29.424	45—31	W.	—	52	50	4 20	27	8 54	340	
7	F	Winter Tortrix Moth.	30.137—30.835	42—23	N.	—	53	50	5 39	28	8 28	341	
8	S	Panorpa hymnalis.	29.892—29.453	50—38	S.W.	01	55	49	7 1	29	8 2	342	
9	SUN	2 SUNDAY IN ADVENT.	29.634—29.412	45—30	W.	04	56	49	sets.		7 35	343	
10	M	Tachyporus pubescens.	30.057—29.833	39—19	N.	—	57	49	4 a 13	1	7 8	344	

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 46.7°, and 35.5°, respectively. The greatest heat, 58°, occurred on the 8th, in 1843; and the lowest cold, 14°, on the 6th, in 1844. During the period 96 days were fine, and on 100 rain fell.

ATHYRIUM FILIX FEMINA.



THIS most graceful of all the British Ferns, on that account, well deserves its popular name of *The Lady Fern*. It is also known as the *Female Shield Fern*, *Female Polypody*, and *Drooping Lady Fern*.

Its root is large, brown, and tufted, often becoming, in old plants, very large and stem-like, but even then lying upon the surface of the soil. The fronds are remarkably lightly formed, plume-like, and graceful, rising in considerable numbers from the tuft, and forming a strikingly beautiful group. They vary in height from nine to eighteen inches; but whatever the height (which is greatest in moist, shady, sheltered situations), about one-third of the lowest part of the stem is without leaflets, but swollen at the base, which is also usually covered with long scales. The general outline of the frond is narrow spear-head-shaped. The leaflets vary much in their arrangement, being usually alternate, but sometimes opposite, and sometimes far apart, but in other

instances very close together. They vary in number from twenty to forty pairs, are narrow spear-head-shaped, very gradually tapering to a single leaflet, lower ones and upper ones often bending back, or drooping. The leaflets very numerous, linear-oblong, or broad spear-head-shaped, sharp-pointed, lobed, and deeply-toothed, the lower lobes the largest. The veining very distinct, mid-rib, or vein, waved. Fructification on the upper edge of side veins in segment-of-circle, or kidney-shaped masses, becoming, finally, nearly round, but never running together; cover, or indusium, white, at first oblong with a broad base, afterwards kidney-shaped, but not swollen; it opens towards the mid-rib, the edge of its opening side being finely jagged. The seeds (sori) are numerous and brown.

No Fern native of the British Isles is so variable in its forms as this, and Mr. Charles Johnson justly remarks:—

“Such differences have afforded a wide scope for speculative botanists to indulge their fancies in the multiplication of species and varieties, and were the wishes and advice of all my kind correspondents to be attended to in regard to the latter, I might exhaust the Greek alphabet from alpha to omega in prefixes. The claim advanced on behalf of a few of the varieties to rank as species, should be very cautiously examined before its admission; those who recommend or incline to their adoption would do well to bear in mind the plasticity of vegetable nature, and the very uncertain tenure of specific distinction in the aggregate, not in this class only, but in groups far higher in grade, and in which features of more determinate character can be arraigned in evidence of supposed dissimilarity. The three principal forms, including the normal one, that are considered best entitled to the rank in question, are thus characterized:—

“1. *incisum*. Fronds more or less drooping, broadly lanceolate: pinnae distant: pinnules lanceolate, distinct, flat, pinnatifid with toothed lobes. Sori distinct. A. *Filix-femina*, Roth.

“2. *molle*. Fronds nearly erect, lax, lanceolate: pinnae approximate: pinnules oblong, connected by the wing of the midrib, flat, toothed. Sori distinct. A. *molle*, Roth.

“3. *convexum*. Fronds nearly erect, rigid, narrow-lanceolate: pinnae distant, convex: pinnules distant, linear, toothed or pinnatifid, convex, with deflexed margins. Sori short, numerous, eventually confluent. A. *rheticum*, Roth. Moore, *Handb.* 136. *Aspidium irriguum?* Smith. E. B. 2199. This is, unquestionably, the most decided character of all the forms, and less positively associated with them by intermediates.

“Besides the numerous slight variations in habit, and in the outline and division of the frond, several remarkable monstrosities are met with in cultivation: of these the variety *crispum* is the most common, and its dwarf, clustered, and much-divided fronds resemble a tuft of curled parsley—a figure of one of the fronds is given by Mr. Moore, *Handb.* 142. It was originally found by Mr. A. Smith, on Orahill, Antrim, Ireland, and since by Sir W. C. Trevelyan, in

Braemar, Scotland. Another Irish variety, still more peculiar, is given by Mr. Newman, Hist. Brit. Ferns, 218."

It is not at all uncommon in the southern and midland counties of England, and is still more abundant in Ireland; indeed, so abundant upon its bogs as to be used as the common Brake Fern is in England, for packing fruit and fish. Except in particular localities, it is more rare in the northern parts of Wales, England, and Scotland.

Sir Walter Scott correctly described the situation it most delights in when he said—

Where the copse wood is the greenest,
Where the fountain glistens sheenest,
Where the morning dew liest longest,
There *The Lady Fern* grows strongest.

It is found in many other parts of Europe and North America.

The *Lady Fern* is first mentioned as a British plant by Johnson, in his edition of Gerard's "Herbal," and we have the very rare pleasure of knowing not only the year but the day of its discovery. "Never," says Johnson, "have I seen any figure resembling this plant. It groweth abundantly on the shadowy, moist rocks by Mapledurham, near Petersfield, in Hampshire. *John Goodyer*. July 4, 1633." It was known, however, both to Gerard and Bauhin, as a species of *Filix mas*, and the editor of Ray's "Synopsis" of British Plants, as late as 1724, describes it as "The Male Fern with thin-set, deeply indented leaves."

Modern botanists have not been unanimous about this Fern's characteristics, hence we find it in their volumes, not only as an *Athyrium*, but as an *Aspidium*, *Polypodium*, and *Asplenium*.

April is the best season for propagating, either by transplanting, or by division of established plants. It is one of the easiest cultivated of all the British Ferns.

"When placed about rock work, it should occupy a low boggy situation at the base of the rock, being planted amongst turfy soil, kept thoroughly moistened, either naturally or artificially. It is far less beautiful if planted in dry exposed situations. Few hardy plants which can be introduced among rock work are so thoroughly lovely as a vigorous *Lady Fern*, placed just within the mouth of a cavernous recess, large enough to admit of its development, and just open enough that the light of day may gleam across the dark back-ground sufficient to reveal the drooping feathery fronds; and, what is more, it will delight to grow in such a situation, if freely supplied with moisture to its roots. In woodland walks, or on the shady margin of ornamental water, no fern can be more appropriately introduced. When grown in a pot, it requires one of rather a large size, and should be planted in turfy soil, intermixed with fragments of charcoal, sandstone, or potsherds. To attain anything like a fair degree of its lady-like gracefulness, this fern must under all circumstances be well supplied with water."—*Moore's British Ferns*.

THE DIOSCOREA BATTATA, OR POTATO YAM.

ALMOST every one connected with horticulture is aware that a plant has been introduced by Mr. Henderson, late of Kingskerwell, in Devonshire, bearing the above name, and that great expectations have been formed connected with it. Amongst others, I have grown a few, and, having long paid attention to field as well as garden crops, I feel in a position to offer an

opinion concerning it. We all know full well how thousands—nay, millions—would relish the introduction of any new field-root of equal importance with the Swede, the Mangold, the Potato, &c., and possessing equal keeping properties, together with a freedom from blights and other vegetable evils. Such impressions alone are certainly enough in themselves to cause the most experienced to wink occasionally at supposed imperfections.

John Bull is said to be a deep, sturdy sort of fellow, not generally inclined to run-a-muck at humbug, and yet is said to have extraordinary fits of gullibility, of so singular a character, as to incline some of his neighbours the other side of the great "Fish-pond" to suspect, occasionally, that he has, what some of our young boarding-school gentlemen are apt to term, "a tile loose in the roofing." And we really have been gammoned occasionally; sometimes by foreigners, but, I believe, much more frequently by ourselves. But it really seems that we shall never get as wise as we wish to be until we have undergone many severe operations of the kind.

I have a letter, containing pertinent remarks on this matter, kindly placed at my service by "W. C. G." I am not, at present, at liberty to give the full name of the writer, but will merely assure our readers, he is a professional gentleman, of high standing in his locality, and one who has not confined his observations to his own profession alone.

"Some letters respecting Chinese Yams tell us, that 'they will not pay to grow in England in the open ground,' and give what certainly appears on the face of it a very cogent reason of this assertion; namely, that the Yams planted in the spring have only produced 'a total of three ounces weight of crop.' But I cannot help thinking that this conclusion has been come at too hurriedly, and from insufficient data, though it is very possible that it may turn out to be correct.

"Were I to inform you that I had raised a new variety of Potato, from which I had been led to hope great things, but that, on planting six of the tubers, they had only produced a crop of three ounces weight, you would at once exclaim, 'what a miserable failure!' But when you came to be informed (what, through inadvertence, I had omitted to mention), that the six tubers planted were none of them larger than an ordinary-sized Pea, you would scarcely, I think, be surprised at the smallness of the resulting crop. I, also, bought and planted some of these notable productions, and although the yield from them was poor, I cannot say that my expectations on *this* score have not been realised; for, to say the truth, my anticipations were down at zero when I planted them.

"My disappointment in connection with these Yams was prior to the planting, and the cause and occasion of it was somewhat after this fashion:—Having read, in some of the gardening periodicals, flaming accounts of these wonderful importations from the Empire of the Celestials, and feeling it absolutely necessary, by all means, and at any cost, to endeavour to reap the earliest possible benefit from such an hitherto unheard of treasure, I wrote off in hot haste to secure, if fortunately I should be in time, a few specimens of these rarities. The price was, certainly, rather alarming; but what, after all, I thought, was two or three shillings apiece for tubers about as thick as one's arm, and nearly as long, and that, too, when these tubers were to start me in the cultivation of an esculent of such superlative qualities, that, in two or three years time, they would, without doubt, entirely supersede that mean and contemptible thing, the Potato!

"It is not much to the purpose to describe the particular directions sent with the post-office order to the advertiser to whom I applied, to have them carefully packed in a three-dozen hamper; and how, in order to save something in the cost of carriage, which some two dozen tubers, two or three pound weight each (this, I think, was the weight they were said to attain), would amount to, he was told to send them by a 'goods,' not passengers-train!

"The next morning but one, I was calculating how long it would be before the hamper should arrive, and looking forward with eager anticipation to the pleasure of unpacking it, when letters arrived by post, one of which contained a neat little box, which, in its turn, was found to contain a number of small, irregular-shaped little things, about the size of Peas, and a good deal like very diminutive earth nuts. I puzzled my brain for some time over these little morsels, and was beginning to—. But spare my feelings, Mr. Editor, and, pray, guess the denouement, or spare me the humiliation of telling it, and imagine how I 'came to grief,' when, on referring to the paper which accompanied that odious little box, I discovered what its contents really were. The Latin proverb, which makes such a to-do about a little mouse being the only result of the mountain in labour, is, I contend, but a feeble illustration of the parallel contrast of this modern instancee.

"I will only add, and, I think, it tells well for my natural disposition! that on sitting down to dinner that day, and espying a dish of magnificent *Fluke Kidneys*, with their jackets on, each confronting me with a broad, mealy-mouthed grin Grimaldi might have envied, and looking for all the world as if they had been splitting their sides with laughter, I felt so conscience-smitten, that I was actually ashamed to look them in the face.

"Mine were planted about half-an-inch deep, on a broad ridge in the open ground, in the early part of April; and although there followed two or three intense frosts, such as would, most certainly, have destroyed Potatoes at a similar depth, the greater part of them survived, and in due time made their appearance above the surface. True, their growth was shy and tardy, and throughout the summer they appeared to take neither to the soil nor climate very kindly; still, quite as much so, I think, as could be expected, considering the weak vitality and small size of the sets, as compared with what sets of tubers weighing from one to three pounds ought to be. Let me observe, too, that these little productions were not really sets at all, or, at any rate, not legitimate representatives, however diminutive, of the true Yam tuber, but were obtained by subjecting portions of the foliage to conditions of artificial forcing, so calculated to stimulate vitality as to force the parts subjected to throw out these spurious little tubercles.

"To expect plants of a healthy and vigorous growth from such, would scarcely, I suppose, be consonant with reason, or with the experience of other growths of abnormal origin. Let us, then, extend our trial to another year or two; or, at any rate, until we can make a fair start with good-sized sets, and allow some little time for the plant to become acclimated, and I have not much fear but that we shall succeed, so far as obtaining weight of produce from the plant grown in the open ground is concerned. But then comes the *cui bono* question; or what useful purpose will it serve? On this point, I feel quite disposed to scout the idea that this novelty is likely, under any circumstances, to supersede our old friend the Potato; or that it is even likely to be ever advantageously cultivated on a large scale, as an auxiliary to the ordinary root-productions of the farm. The great depth to which the full-sized tuber extends below the surface, and the impracticable character of the stem and foliage above it, seem to preclude such an expectation. There appears to be no sufficient reason, however, why it should not occupy a place in our gardens as a useful addition to our present list of culinary plants, if only the qualities claimed for it by the French Professor, M. M. Decaisne, prove to be correct. It would seem, from the analysis, to be far richer than any of our roots in the abundance of starch it contains; and this being one of the chief nutritive ingredients in such edibles, this Yam may be expected to be proportionably valuable, supposing it to possess the flavour requisite to render it palatable when cooked. On this last point I must confess to some misgivings, though it is obviously one on which it is, as yet, too soon to hazard a decided opinion, and the more so, as it is a matter in which tastes so notoriously differ.—W. C. G."

In examining closely this paper, as in duty bound, I must assume four points as texts.

1st. Quality of roots.

2nd. Aggregate produce.

3rd. Hardihood.

4th. Suitability as a field crop, or a contributory to rotations.

As to QUALITY OF ROOT, there seems little occasion to doubt that it contains a valuable amount of starch, as "W. C. G." affirms, who knows much more about starch than I do. But as an eatable root for the human species, something more than starch must be taken in consideration. Only look at the hubbub that was raised about the Potato disease; we were all to give up *York Regents*, *Flukes*, and the rest of them, for Mangold, Carrots, &c., which, however good in company with boiled beef, are not quite so well qualified to be served up with the countryman's milk, or butter-milk. I boiled a Yam of about three ounces weight the other day, and my family either partook of it, or stared at it; for my part, I thought it, in texture, much like to "soap after a day's washing;" in texture, I mean chiefly. It was what I must term all slime. As to flavour, nobody could find fault with it, *it had none!* A Scorzouera and a Salsafy root were boiled with it, and I thought them far superior. All this may be called prejudice, and it may be; but who can change the habits of our masses even in a generation? who can do away with tea and tobacco while to be had, supposing that it ought so to be?

AGGREGATE PRODUCE.—For my part, I cannot say much about this; we have all this to learn. But I think it has been named, by those who originally took the root in hand, that proper-sized tubers would produce, under proper circumstances, one or two roots something like Parsnips, and, occasionally, a subordinate, half-sized tuber or two, for seed in the ensuing year. I suppose, however, as in this and other anticipations, I may prove to be occasionally in error, I do not wish to be considered as affirming anything in a dogmatical spirit.

HARDIHOOD.—Here, again, we have another matter for consideration; and I must at once take the liberty of directing attention to two points, which must not be confounded; viz, hardihood in the rest state, and in the growing condition. We all remember that autumn-planting of Potatoes was said to be the chief remedy for the disease and other things; but the whole gist of this proceeding—as in part a mistaken idea—arose through the advocates of the practice forgetting that neither Potatoes, nor any other roots, or seeds, like to be below a certain level. Surely, this is an incontrovertible fact! The fear of Jack Frost before their eyes caused people to plant them deeper than was suitable. But setting aside autumn-planting; what about spring frosts, and those of early autumn? I do not know how all the island suffers, but we had our Yams snubbed down by 9° of frost about the middle of May, and, again, another sharp pinch of 3° or 4° on the 8th of September finished their history. And, indeed, during the very hottest part of summer our plants never showed that most desirable sign—of answering to a call of climate—that we see manifested in our old-fashioned Potatoes, or even our Kidney Beans, &c.

SUITABILITY FOR FORMING A PART IN ROTATIONS.—Here we have, as I think, the best feature of all in Yam culture. As deepeners of the soil they possess undoubted powers. Our roots, weighing some three ounces each, were placed on raised beds, at least half-a-yard above the ordinary level. I employed an old farming chap to get them up, and watched the operation; and as I wished to get to his own secret impressions, I gravely observed, that this root was to supersede the Potato; and told our hero that I had an impression that his grandchildren and mine would be reared on these same Yams. I will not attempt to describe his countenance while listening to this affected gravity, but may merely observe, that after giving me a penetrating look, he remarked, that he thought they would be

great favourites with our washerwomen. But to the main fact—the labour question—the question of our times. I do think, that after a man has trenched his ground nearly a foot deep in order to get his crop up, he should either be in a position to talk of his thirty tons to the acre, or to stoutly affirm the land whence the Yams were cultivated was in a position to carry out a two years' course of cropping, with no manure and little handling.

I here beg respectfully to observe, that I consider all deepeners of the soil as generally valuable in rotation matters; but then, we must look to our balance-sheet, and see if the cash paid will come back, with its proper interest.

These are my present impressions as to this Yam. If they are erroneous, I am open to conviction; they are, at least, truthful in intention. I would, however, let it have a thorough trial next year, taking care not to invest too much cash in its purchase.

R. ERRINGTON.

LONDON HORTICULTURAL SOCIETY'S MEETING.—20TH NOVEMBER.

(Continued from page 142.)

PINE-APPLES.—There were twenty-eight or thirty Pine-Apples exhibited at this meeting, and never did I see so many of this fruit coming up so nearly in the point of merit. None of the Pines were remarkably large or heavy, but they looked first-rate, and ready for the dessert-table, without a single third rate specimen; and very few which were much below first-rate. Mr. McEwen, from Arundel Castle, took the highest prize for them. Mr. Fleming had the second prize, and Mr. Jones, gardener to Lady Charlotte Schreiber, third. Mr. McEwen, from Petworth, Mr. Forbes, from Woburn Abbey, and Mr. Tillyard, were among the best known hands in this competition.

GRAPES—These were equally fine and numerous; but some of the *Muscats* were not nearly ripe, nor were the first-prize Grapes, the old *Tokay*, quite ready for table; but the bunches and berries were magnificent. The three bunches weighed ten-pounds-and-a-quarter. Two of them were four pounds each. They were from Mr. Hill, gardener to R. Sneyd, Esq., of Keele Hall, Staffordshire, who had the first prize for white Grapes for them. There were four second prizes in this class, and one third prize. Mr. Tillyard, gardener to the right Honourable the Speaker, had the first prize for black Grapes, the *Common* and *Mill Hill Hambro'*. Mr. Hill had the second prize for black ones; he had the *Black Prince* and the two above-kinds of *Hambro'*. Mr. Clarke, of Turnmoss, near Manchester, seems to ripen and colour the *Muscat* Grapes better than most of our first-rate gardeners; while those from Bishop's Stopford lacked in these qualities considerably.

PEARS.—Mr. McEwen, gardener to Colonel Windham, of Petworth, took the first prizes for dessert and for kitchen Pears; the kinds were—Dessert, *Duchesse d'Angouleme*, *Beurre d'Capimont*, *Marie Louise*, splendid *Van Mons Leon le Clerc*, *Beurre Diel*, and very handsome *Napoleon*. His kitchen Pears were the three oldest and best known of that class.—*Uvedale's St. Germain*, *Catillac* and *Black Pear of Worcester*. Mr. Whiting, gardener to H. T. Hope, Esq., of the Deepdene, took the second prize for dessert Pears; and Mr. Ingram, the Royal gardener, the second, for kitchen. The kinds were, *Uvedale's St. Germain*, *Spanish Bonchretien*, *Vicar of Wakefield*, and *Catillac*, of all of which the *Catillac* ripens on a standard farthest north; but I have seen the *Black Pear of Worcester* ripening on open standards at Altyre, near Forres, in the hot summer of 1826.

APPLES.—Mr. Ingram took the first prize, and Mr. Whiting the second, for dessert Apples; while Mr. McEwen, from Arundel, took the first prize for pudding and sauce Apples, and for tart and dumpling Apples as well. They were *Alfriston*, *Alexander*, *Dumelow's Seedling*, *Gloria Mundi*, *Blenheim Pippin*, and *Baxter's Pearmain*.

PLUMS.—*Coe's Golden Drop*, *Imperatrice*, *Coe's late Red*, and the *Ickworth Imperatrice*, were the kinds exhibited; and Mr. Hill, from Keele Hall, had the first again here. Mr. Tillyard, the second; and Mr. Muirhead, gardener to Lord Charles Wellesley, had the third.

FIGS.—The *Nerii* and *Brown Turkey* were the only two kinds exhibited, and the two Macs fought it out for them. He of Arundel gardens coming off second best; but it was a very close contest; but I believe the Arundel *Raspberries* and *Strawberries* carried the day; but the newest fruit to me, the highest coloured, certainly, and, I should think, the hottest fruit under the sun, was a small berry-like Capsicum, from the garden of the Society; it was called *Row's Small Capsicum*, and might be about the size of the bead-seed *Abrus precatorius*. This kind is so very hot and pungent that writing the name has actually made a tickling in my throat. I could eat a dozen Chilis any day, but the half of one of these little berry-like things very nigh drove me mad; and my eyes watered so that I was obliged to get out of the rooms, and all out of London as if I had been half sealded alive.

There was a considerable deal of talk about the China Yam, *Dioscorea batatas*, and lots of nice-looking roots of it were exhibited. It is much like a long, thin, parsnip turned upside down. It was said to be a nice thing to eat; not soft and pulpy, like a carrot or parsnip,—nor yet mealy, like a good boiled potato, but more firm and crisp, in the way of a nut or filbert. The conclusion at which we, or most of us, arrived at, from what we heard on the spot was, that no assistance or any artificial heat should have been given to the young plants at all; but to plant out the "sets," or small tubers, at once, like so many potatoes, and about the middle of April; that our climate seems warm enough for the growth of the plant; but that we must suspend our judgment of the produce, and on the likelihood of a profitable return, till we have learned from a second trial of the plant.

D. BEATON

CHRYSANTHEMUMS, POMPONES, AND LILIPUTS.

For the last ten months, I have taken more pains with, and made a greater number of experiments on, the Pom-pone Chrysanthemums, than I recollect to have done in so short a time with any other family during my lifetime, in the garden, at least.

When I saw that they were destined to become very popular, and very useful into the bargain, and knowing my own deficiency respecting them, from the fact of their "coming in" just at the time I was going out of office, and so missed them at the first start, I had no time to lose to enable me to get sufficiently up to the mark of a practical judge over them; and if the war had been carried on, from the first, with such earnestness as I prosecuted this subject, we should have been masters of it by this time, as completely as I am now over this subject; for, as *Cedo nulli*, the name of one of the best of them implies, "I yield to none" on that point.

It is true, I should not like to waste my precious time in training them into contortions, in order to get the plants into certain forms, and the flowers all to one face, or view, to suit a cockneyfied style of taste—such

as that to which the judge for the Horticultural Society gave the first prizes the other day.

As there is no accounting for taste, however, I shall not dispute about it, but will go on to say, that my own Pompones, this autumn, were, perhaps, the very best in the country; that many of them are very good indeed this very day, 27th November; that I shall have some equally good till the beginning of the new year; that not one leaf of them has, as yet, been under glass or cover, or shelter of any kind, from the day they were rooted; that I had by far too many of them for my own garden; and that I have to thank some kind friends and neighbours for helping me to find autumn room and pasturage for so many of them, which eased my hands considerably, and thus allowed me more time to prosecute my studies on their merits, on the language of their names, on their family history, the phases through which some of them have and are passing, the most recent and most beautiful in their tribes; and the hopes, fears, and anxieties for their future improvement and rise in the world. Out of all of which, who knows how often I may be tempted to write about them.

Last week, I said, I would throw so many of them away; but Mr. Salter, of the Versailles Nursery, Hammersmith, has since advised me not to be so rash; but to keep one or two of all my sorts for another year. He says that this was a very bad season for them, and that I might repent, when, in a fine season, I saw the difference. I have been thinking all along that there never was such a good season for Pompones, judging from my own plants, which embraced forty-four kinds, two or three more kinds having opened their flowers since last week.

Mr. Salter has the best collection of them in Europe, and knows more about them than all the people with whom I have been hitherto consulting put together; but he does not grow them for "show" at all; merely to let you see the breed, the blood, and the various colours. He has very few of them in pots, having grown them out in the open borders all the summer, as I have done; he only took them in-doors as they were coming into bloom, with balls to them; placed the balls on the hard floor of a large house, and filled in soil between them, and just sufficient to cover the balls, so that you might think they were growing in a conservatory bed; with walks running up and down among them, so as to get to see different kinds; and as every plant in the house is in bloom, and the collection is made up of the nicest and best of all the kinds of Chrysanthemums, large, small, and smallest hybrid and anemone-flowered kinds, it is not difficult to make a selection for one's notes.

The newest one in the house, a seedling, by Mr. Salter, himself, has just been named *Mrs. Westwood*, after the lady of the celebrated entomologist of that name, and one of "our own correspondents." It belongs to the Lilliput section of them, and is a most profuse bloomer, and has very peculiar tints;—a silvery-blush and purple on the back, which shades up between the petals;—the centre of the flower is a little "honeycombed."

But let me first show up the best flower-garden sorts out of my own older kinds. *Louis Piton*, without being a pure white flower, like *Argentum*, is the best white out-of-doors. It stands the cold and wet better than *Cedo nulli*, but both of them are not the least hurt by five or six degrees of frost,—indeed, none of my flowers have suffered the least from that degree of cold. *Cedo nulli* would make a white bed better than *Louis Piton*, because the white is more clear, and the flowers are produced lower down on the plant; they have, also, the advantage of a slight brown tip on the top of the centre petals, which causes the rest to look gayer. *Ninon* is the next nearest to white, and the gayest little flower in

the garden. It is a clear white, and every petal is deeply tipped with bright cherry—the only really cherry-tipped flower among them; this is a very late kind, and flowers down to the ground, very nearly, by a peculiar treatment, which agrees with numbers of them, and which I shall describe some other day. If *Ninon* would keep the cherry-tips under glass, it would make a most agreeable pot-plant; but all of this class soon get too much bleached in-doors. A fact, which suggests another distinct use for these Pompones, in addition to flower-beds and conservatory decoration; which is, to have a *selection* of them gathered together at the end of September, and to plant them in the best sheltered borders, or against walls in the kitchen-garden, so as to preserve them as long as possible for cut flowers for the rooms. They hold on that way much longer than any flowers I know; and, certainly, there is no comparison between many of the kinds, when cut, from the open-air and from in-doors. Take *President Decaisne*, for instance, and, in-doors, it soon turns to a faint lilac, and a second-rate flower; but out against a wall, it is, by far, the very best and richest of all the Pompones; say, one-half deep purple and one-half rich lilac; a larger flower than any of them, and fully as sweet, if not more so, than *Le Nain Bebe*; and the latter is more sweet from the open-air than in a pot.

If I were the Duke of Monte Montano, I would have my gardener to attend to this very thing from this very day. He would then look out in time for the right kind for cut flowers; propagate them next spring to a large amount; plant them out in whole rows along the walks and borders in a kitchen-garden along with the rest of them, for it is little short of mad extravagance to put any of them in pots before the last week in September, unless you want them for a show; and there are quite enough, and more than enough, on the look-out for that sort of thing already, especially as they give the prizes for the greatest extravagance. *Argentum*, not *Argentine*—as some spell it—although the best clear white in a pot, is not a good out-door plant for show; but *Bijou d'Horticulture*—a creamy white flower—is very effective out-of-doors; and *La Fiancée* (the Bride) is a dwarf white, of great beauty in a border. Of lilac kinds, *President Decaisne* takes the first stand out-of-doors, and for cut blooms, although not quite a lilac. *Le Nain Bebe* (the Little Baby) is the next to the *President*; the French word *Bebe* is pronounced very nearly like Baby; it is the best edging plant we have for a mixed bed of Pompones, and a sweet little flower; but it turns much paler in-doors, though not quite so much so as *Surprise*, which is the best lilac bedder of all of them. If you make a whole bed of it, with an edging of *Le Nain Bebe*, but in the centre of a mixed bed, *President* is the best.

D. BEATON.

(To be continued.)

LESCHENAULTIA.

This genus is frequently written *Lechenaultia*, and is commemorative of a celebrated French botanist and traveller. The whole of the species are beautiful, low bushes, ranging, when well grown, from nine to eighteen inches in height, or more. All are natives of New Holland, and want the general treatment of hard-wooded plants from that quarter. The most beautiful are—*Formosa*, with small Heath-like foliage, and bright scarlet-like flowers; *Splendens*, bright scarlet flowers, and stronger growing; *Oblata*, or *Baxteri*, orange, and not growing naturally quite so dense, and, therefore, requiring more stopping than *formosa*; *Arcuata*, yellow, and the branches more bowed, but of which I know very little; and *Biloba*, bright blue,—one of the very best, and the most difficult to grow into a fine, dense

specimen, requiring more care, more fibry peat than the others, and to be potted more carefully on the succession system of giving small shifts, as anything like sodden soil in the neighbourhood of the roots is sure destruction to it. This is less likely to happen when small shifts are given to it at a time, because the pot is more likely to be well filled with good, healthy roots, and then, provided the drainage is all right, and the compost alike firm, but open, there is little likelihood of a redundant, stagnant moisture about the roots, so dangerous at all times, and especially in winter. Many plants of this kind are best kept in double pots, that is, the one in which they are grown placed inside of a larger one, and a little moss stuffed between them. In summer, this keeps the roots comparatively cool, and in winter, unless the weather is very fine and bright, or the frost is so intense as to require much firing, much watering will not be wanted, provided the moss between the pots is kept dampish.

I am well aware that some of our best gardeners grow this *biloba*, as well as the other species, very rapidly, at times, by giving large shifts, but this should never be attempted, unless in cases where you can depend upon thought and intelligence wielding the water-pail when applied to all such plants; giving no more water than would just reach the fibres; as inappropriate, sodden soil would not be good for any of them; and, as has already been stated, would be certain ruin to this beautiful *biloba*.

This care in watering in large shifts, and the means of giving the plants a higher temperature and a closer atmosphere than a common greenhouse, to encourage growth, and then plenty of air and sun afterwards, to consolidate that growth, are the secrets of success with all such hard-wooded plants. Where all these minutiae cannot be attended to, the cultivator should be satisfied with giving his plants smallish shifts, and growing them slowly, and one consolation then is, he is likely to keep them longer. I have grown these plants, and also Heaths, to a large size, very quickly, but they require more attention afterwards to keep them healthy than plants grown more slowly. Were it not for the Heath-like foliage, the blossoms look very much like the small-flowered section of *Lobelia*, so much so, that I recollect a lady looking at *formosa*, and exclaiming—"What a beautiful red *Lobelia*."

Propagation.—If allowed to remain, seed-pods are pretty freely produced, and young plants are easily raised, by sowing these in well-drained pots, placed in a hotbed in March, and air given as soon as the seedlings are fairly up. Before that, it is as well to cover the pot with a bell-glass, and to tilt it on one side for some time before removing it altogether. Such plants, however, are hardly so prolific in bloom as those raised from cuttings, and require more nicety in their management when very young. Cuttings, therefore, are generally resorted to. Small pieces of the points of shoots, from half-an-inch to one inch in length, may be taken off any time from February to June, and even later; but the objection to late cuttings is, that the plants are so small, that they would almost require to be kept in the cutting-pot all the winter, whilst those struck early may be potted off and pretty well established. As a medium, I should consider March and the beginning of April the best time.

In choosing the cutting, all that is necessary is to secure young growth, and the base, though young, yet so firmish as to stand a clean cut with a sharp knife, as many of the lower leaves should be cleanly removed as will permit the cutting to be inserted to the depth of a quarter-of-an-inch, or a little more. Here I may remark, that amateurs often fail in striking such little things from having the cuttings too large, or inserting them too deep. As a general rule, in all cases, where a bell-glass is used to prevent the cutting exhausting itself by the

perspiration of its juices and the solidifying of the little carbon it possesses, provided the cutting is securely fixed, the less its base is buried the better it will like it.

The cutting-pots should be prepared, as frequently recommended, from one-half to three-fourths filled with drainage, then a layer of rough fibry peat, in small nodules, then finer sandy peat, surmounted with from one-half to one inch of pure silver-sand, the pot then be set in a tub of water, until all is well saturated, and then allowed to drain for a day. When the surface is pressed down with a round, smooth board, it will be ready for the cuttings, and when firmly dibbled in the holes may all be filled, by trundling dry sand into them, and as much water given from a fine rose as will make the surface moist and smooth. The cuttings are then to stand in a shady place until the tops are dry, and then the bell-glass be placed firmly over them, making the edge sink a little in the sand. With tender cuttings, success will be rendered more certain, if, whilst the cuttings are thus placed in one pot, that should be placed in another, the space between filled with sand, and the bell-glass be fixed between the two rims. By such a mode, most of the cuttings may be placed close to the rim of the inner pot, the advantage of which, and the reason why, I have several times mentioned, while the cuttings would be less subject to changes, and be more free from dampings, especially if conical-shaped glasses are used. Such care as double pots is not essential with this genus, however, unless, perhaps, in the case of *biloba*, as the cuttings strike very freely. In the early spring months the rooting process will be greatly promoted by placing the pot in a bottom-heat of about 70°, with an atmospheric temperature of from 50° to 60°. After a few days, it will be advisable to tilt up the side of the bell-glass at night, and replace it firmly in the morning, and just shading as much, and no more, as will prevent flagging. As soon as roots are formed the bell-glass must be gradually dispensed with, taking it off, first at night, then night, morning, and evening, and, at last, at mid-day, and altogether, giving more air accordingly. I have seen a whole batch of these and young Heaths go to the wall, because the practitioner potted them *directly* from under the bell-glass, and placed them in a good-enough place for growing plants, but which, for them, in their previously coddled state, was wholly inappropriate. When first potted off, it will generally be best to place them round the sides of a 4-inch pot, and keep them close and shaded until growth is proceeding freely, when they must be gradually hardened by air and exposure, and, if struck early, may again be shifted into single small pots, if there is time for them to fill their pots pretty well before the winter. In general, they will be as well in their first pots until the next spring.

Choosing a Plant.—Did I want to make a fine specimen, I would select a nice little plant about April, and would prefer a healthy, bushy plant, in what is called a 60-pot, to one in a 48 or 32. Even in choosing the small plant, I should give the preference to one with the roots just coming to the sides of the pot, instead of one so full of roots as to be matted; and supposing the succession mode of shifting to be adopted, much of the success will depend on never letting the roots get matted much at all; but shifting in time to prevent it, until the plant is in as large a pot as you wish it to bloom profusely in. The reason why the young plant is preferred, is, that the older plant is very apt to have been pot-bound several times before it has got into its present pot; and this,—if it does not make the plant stunted, as a whole, and, therefore, more inclined to bloom freely, than to grow vigorously,—is very apt to make some of the branches stunted, and these will, very likely, remain so, or go off altogether, and, in either case, mar the symmetry of the plant. Of course, I make an exception in the case of

these larger plants that have been grown on in the manner indicated above, by tradesmen intending them for specimens, and these must be paid for in proportion to the care and trouble involved. Largish plants, treated in the common way, will do very well for standing on the shelves of small greenhouses, will bloom profusely if kept in the same pots, and supplied with top-dressings, and weak, cool manure-waterings, and even, at times, by receiving very small shifts; but, as a general rule, they will not do, when fine, large, healthy symmetrical specimens are the ultimate objects aimed at.

Potting, Soil, &c.—I have mentioned about the 1st of April for choosing a plant, because the plant at that time will be exposed to little danger in the carriage, and the best growing part of the year is before us to make the most of. When received, it should be kept in nice growing circumstances, in rather more heat than an airy greenhouse, for eight days or so, and then be potted and kept with less air until the roots are getting into the fresh soil, when air may be given freely. Need I mention that the pots should be clean? if new, steeped in water and dried previously, and that good drainage and a sweet, well-aired soil are indispensable.

The soil should be rough, but squeezed firmly together. For a 6-inch pot, for instance, much of it should be fibry pieces of the size of large peas, and larger pieces should be introduced as the shifts are larger. For such a size, the greater portion should be fibry heath-mould, nearly a half of fibry hazel-loam, with a sufficiency of silver-sand, and lots of crocks and charcoal to keep it open. Small, hard nodules of clay are very good for this purpose. I like all such compost to be sweet, but not to have the fibre decomposed, as lately mentioned. I cannot always get what I like, but the loam I should prefer for potting would be an inch of the turf off a hazelly loamed pasture, where the grass is short and almost as hard and fine as small needles. Wherever such is found, the fibres are so matted that it can be scarcely torn asunder, and in a twelvemonth would suit even an epicure in potting. Young plants should have rather more peat, and, as they get older, rather more loam.

Position and Temperature.—When fresh potted, it is always advisable to keep the plants more close for a time, and to give slight syringings to encourage free growth. When ultimate effect, rather than present gratification, are the object, all flowers must be taken off young plants as they appear. Almost all the species, by the time they are two and rising three years old, may be said to be *ever* blooming; but even when they get to a large size, say, in a 10 or 12-inch pot, or larger, if it is desirable to have a very dense mass of bloom at one time, the bloom-buds must be removed, and topping the shoots take place sometime previously, to be regulated by the time the great display is wanted. Training must begin by the time the plant gets into a 4-inch or 6-inch pot, tying down and out the side-shoots, and using small twigs for supporting the others in their place, and stopping all shoots, where more are wanted to make the plant a dense bush. They very easily take a pendulous form, and a plant some fifteen inches above the pot looks very beautiful as a cone, the base of the cone, from the flowering branches hanging over it, being pretty well as low as the base of the pot. Before the plant is very large, this thumb-and-finger stopping will in general be sufficient; but to keep a large plant in health for a long period, it would be required to be pruned back pretty freely every season after the principal blooming was over, and then to be placed in a close pit, or frame, to encourage it to grow freely; and then, provided that fresh growth was well ripened before autumn, there is every chance of a free blooming next spring and summer. In winter, the plant should have a nice open position, and seldom, for any length of time, be under 45°. Air

should be given pretty freely; but when the external atmosphere is 40° and below it, the air should chiefly be given at the top of the house. When the air is dry and frosty, none should be allowed to strike the plant directly, by opening the front sashes. In cold, foggy weather, as we have had this November, little air should be admitted, and to keep that in motion—as well as for changing the visible fog inside the house into invisible vapour—a sharp fire may frequently be used, but not enough to raise the temperature of the house much. I have had plants frozen to the shelves, and without much injury; but a low temperature for any length of time would be fatal, and more especially if that plant was at all growing anything freely. In spring and early summer the plants will bloom nicely—and, provided the sun does not strike on the pot too fiercely, no better place for them could be found than an open greenhouse. When the chief time of flowering is over, a cold pit that could be kept closish after the nipping and pruning would be better than a greenhouse. When growth is freely proceeding, more air and full sunlight should be given in autumn. The glass may even stand off all day in September, when the weather is a little cloudy, and even at night, when there is no risk of rain; but deluges, or extreme bright sunshine, without the intermission of glass, are not desirable. When the pots are well shaded, however, the tops stand the sun better. In the extreme noon-day heat, it is better to place the glass over them, with plenty of air back and front, and the glass slightly shaded. When thus well hardened, the plants should get into the greenhouse by the first or second week in October. I trust these desultory remarks will so far meet the wants of several inquirers.

R. FISH.

ORCHIDS WHICH WILL BEAR COOL TREATMENT.

MANY persons have told me that they would not grow these interesting plants because they require such excessive high temperature, and that colds and coughs, in consequence of such temperatures, were almost sure to visit the cultivators of Orchids. Though I consider this an erroneous idea (for few men have spent more time in the Orchid-house than I have without taking cold), I shall not combat it, but suppose it to be true.

Well, then, if the heat is too high for the personal comfort of the too-fearful lover of Orchids, I can assure him, or her, that there are a large number of very beautiful Orchids that may be grown well, and flowered better, in a house, the temperature of which need be no higher than that of a common Geranium-house. I intend to give a list of such as I know, from experience, have for several years been grown in such a comparatively low temperature.

In my former papers on Orchid-culture, in the earlier volumes of *THE COTTAGE GARDENER*, I stated, that two houses were indispensably necessary; one to grow the East Indian species, and the other for such as come from the more moderate climate of South America. To these I may now add a third house, for growing such Orchids as experience has proved hardy enough for a common greenhouse.

AVOIDANCE OF DRAUGHTS.—The essential difference in culture is, that those in the lowest artificial temperature require, during their season of rest, to be kept dry, and also no heavy draughts of cold winds should be allowed to play on or through them. Hence, in giving air to reduce the thermometer, or, in other words, the internal heat of the house, it is much more in accordance with true science to give or let in cold air below the plants, and to let out the heated air through openings in the highest part of the house. Sudden changes are

injurious to any plant, but more especially to Orchids growing or cultivated in a cool house, and those sudden changes are generally in consequence of a bad system of giving air, always excepting excessive cold, induced by having no means at work of repelling cold by internal heat, or, as gardeners say, by letting frost get into the house for want of attention in keeping up sufficient heat by flues, or hot-water pipes.

WINTER REST.—Then, again, as even those Orchids that will bear a low temperature should not be excited to grow in short days, the growth should be obtained in the long days of summer, and the rest during the dark, short days of winter. There are two distinct seasons in Orchid-culture; one, a season of growth; and the other, a season of rest. Whoever attempts to keep his Orchids at an even temperature throughout the year will, it may be, obtain large plants; but the tissue will be thin and tender, and full of ascending sap, which scarcely ever produces flowers. A cessation of growth for a considerable period is equally necessary to induce or give the power to an Orchid to produce fine flowers abundantly, as it is necessary to a Vine, or a Peach-tree, to produce blossoms and fruit.

AIR IN SUMMER.—A third important point of culture in the class of Orchids I am writing about, is to give plenty of air during summer, even when the plants are growing. This air is, of course, necessary to keep down the temperature in summer, just the same as if the house contained Camellias, or Indian Azaleas, or any other tribe of plants from temperate climes. The same precaution, however, is necessary in summer as I have mentioned as necessary in winter; that is, no Orchids should be placed opposite to the openings where the cooling air enters the house.

WATERING.—During the season of growth these Orchids should have a due supply of water, both at the roots and over the foliage, but by no means in excess, especially such as grow in pots. The best time, in spring and summer, to apply water is in the after part of the day. In April and May the time would be from three to five o'clock; the first hour when the sun does not shine clear, the second, when it is, or has been, bright or clear during the day. The syringe should have the holes so fine, that when the water is forced through it it will fall like gentle rain on the plants. The water should never be forced through or upon the plants like a heavy shower driven by a strong wind. The watering at the root, also, should be given through a small pipe, and very gently, care being taken that the peat or other material in which the plant is growing is thoroughly wet, and allowed to become nearly dry before the watering is repeated. Rain, or river water, should, if possible, be always used, either in syringing over the leaves, or given at the roots. Plants growing in baskets will require taking down and dipping in water till the compost is wetted through. They should be allowed to drain well before being suspended again over any plants that may stand under them. The water should always be of the same, or very nearly the same, temperature as the air of the house. If there is no tank in the house, it is very easy to warm the water previous to using it, by adding a sufficient quantity of hot-water to raise the quantity that is needful for use at any one time to the proper heat.

POTTING.—The time for this important operation is in spring. Orchids, however, grown in a low temperature, do not require re-potting every year. Frequently, they will thrive well in the same pot, basket, or on the same block, for two or even three years. If they are doing well, let well alone. I have known plants thrive well and flower abundantly without doing anything to them, excepting watering for the longest period above-mentioned; but when they do require a renewal, per-

form the operation just when new growth of the shoots and roots are making their appearance, which generally happens when the natural increased temperature of the air out-of-doors takes place. If close attention is paid to keep the plants dry and cool during the winter no premature growth will occur. Then the natural season of growth will have taken place, and the plants will be observed making efforts to grow, and then they ought to be potted; those in baskets have new large ones, if necessary, made for them, and those on decaying blocks have fresh ones made ready for them.

SOIL.—The best materials for potting are rough, very fibrous peat, well mixed with broken pots and small pieces of charcoal. There are some species that require a different compost. That compost I will describe when I give the list.

BASKETS.—The best baskets are those made of the branches or small stems of the common Maple, though hazel-rods make excellent baskets. Any kind of wire I consider a bad material to make baskets with for Orchids. The oxides of either iron, copper, or brass is injurious to the roots of Orchids, either in a high or low temperature. Almost any kind of what are called hardwoods, such as Oak, Elder, Ash, Crab, Hornbeam, Elm, or Acacia, make excellent blocks. Mr. Edwin Wheeler, who has purchased this nursery, has been an amateur successful grower of Orchids for many years in a low temperature. He uses chiefly blocks of Oak, and instead of suspending the blocks, he places each block in a pot filled with crocks. These keep the block upright, the plant standing above crocks on the top of the block. In the growing season he keeps these crocks moist, which moisture rising up, keeps the plants supplied with atmospheric moisture.

There is here now in flower a fine specimen of the new and rare *Cattleya maxima*, from the mountain of Quindos. It has rose-coloured sepals and petals, and a large labellum of a white ground colour, striped broadly with purple-crimson, and a broad, yellow stripe down the centre of the top. This fine species is growing on a block set amongst crocks in a pot. I admire this mode of growing Orchids that require blocks. It seems to be a half-way house between growing on a block and in a pot, combining the good points of each mode of culture.

SHADING.—Though the plants to be mentioned in my forthcoming list are well adapted to thrive under a much cooler treatment than is usually supposed necessary for the tribe, yet even they will not do without shade from the hot sun of summer; hence, it is necessary to shade them in such weather. I have, in the course of upwards of twenty years' experience, come to the conclusion that there is nothing equal to a roller and fine canvass for a shade for any kind of plant like Orchids. The great objection to any permanent shade, such as thick green glass, whitewash, or other shade that cannot be removed at any time, arises from that very fact of its permanency. It is a shade in dark, dull days, as well as bright, sunshiny ones. It shades the plants when they do not need shade, and is certainly then detrimental; whereas, a shade of canvass fixed to a roller can be rolled up or let down whenever shade is required, or not, according to the state of the weather. When the expense of new canvass, when required, is not a matter of moment, the covering up the glass in frosty weather is exceedingly useful as an adjunct to the artificial heat necessary to keep out the frost. The great objection, or rather evil, of a moderately-heated house in frosty weather, is the condensation of the moisture on the inner side of the glass, where it accumulates and falls down in drops on the plants. Now, an outer covering prevents this, because the glass is kept nearly as warm as the air inside, and, consequently, there is no condensation. Whoever can afford it, let

him use his covers in winter, in frosty weather, to prevent condensation, as well as for shade in spring and summer

T. APPLEBY.

(To be continued.)

FORCING ASPARAGUS, SEA-KALE, AND OTHER VEGETABLES.

THERE are few things more acceptable at table than good ASPARAGUS, and there are few things more easily to obtain in winter, provided the summer treatment has been such as to ensure its being good; for, like Sea-kale, Hyacinth flowers, and some other things, the quality of the forced article is, in a great measure, due to the accumulated energies of the plant stored up during the preceding growing season. Certainly, a hasty or improper mode of forcing will considerably decrease the produce, and, in fact, all forcing must partially do so, while on no occasion is it improved by it, that it becomes the careful manager so to arrange the roots that as little damage as possible takes place.

In the first place, like everything else, the shorter the period of rest the plant is allowed the worse is its produce. It is necessary, therefore, to hasten the early ripening of the plant to be forced, so as to give it as much rest as possible. Now this cannot well be accomplished, save by planting on a dry, early situation, where the settled dry weather we often have in September will give the plant a better chance to ripen and perfect itself than it could otherwise do in a cold, damp place; hence the propriety of selecting plants to force from such a situation, if a choice can be made. Be very careful in taking them up not to injure them, and do not let the roots be cut; and let as much earth as possible adhere to each plant, and let them be carried at once to the bed prepared for them, and inserted at once in it, giving them the necessary covering of fine, mellow earth, to prevent their roots receiving injury by exposure; and their after-treatment is simple enough, if due regard be paid to the heating material on which they are planted, and other matters detailed below.

While enforcing the propriety of taking up Asparagus with all possible care, similar attention must be paid to SEA-KALE when it has to be taken up, or, in fact, anything else. Without good roots, no plant whatever can live and do well; and, therefore, such plants as *Sea-kale*, *Chicory*, *Asparagus*, *Parsley*, *Mint*, and, in fact, anything whatever that it is necessary to take up to force, ought to be taken up with all the roots as entire as possible, as there is little doubt but that the whole of the underground portion of the plant is charged with the accumulated matter of the preceding year's growth, which must be more or less lost in proportion to the mutilation.

In preparing a bed for forcing Asparagus the very commonest material may be used; tree leaves, tan, or dung, anything that will give heat that will maintain a temperature from 55° to 70° will do; as it is better not to begin too warm at first, but gradually increase the heat; this, however, cannot well be done in an ordinary hotbed, and it is hardly necessary; but having got the bed made up of materials that have been little prepared beforehand, some fine earth, or what has been partly mixed with leafy-mould, may be spread over to the depth of two inches, and the plants may then be placed on tolerably thick, yet not crammed together, as by that means they have no chance to benefit by the substance they are placed in, but have to subsist and produce their heads from the stored-up matter of the former year alone; after they are so placed, cover them up with fine sifted, leafy-mould, so that the crowns of the plants are about two inches covered over, and the lights put on; but little more attention is required until the plants

begin to grow a little, when they will be benefited by a watering with liquid-manure in which a little salt has been thrown; the salt at this time is simply to make the bed distasteful to any slugs or wood-lice that may have found their way in. Waterings with liquid-manure may be repeated during all the time the plants are being forced, and the result will most likely be satisfactory.

It is a matter of taste whether *Asparagus* be grown in the dark, and blanched white, or be allowed a certain amount of light and air, and become a little green—for it is not easy to have it quite green—the dull, dark days, and the probability of frost and snow, preventing so much exposure as is necessary to give it colour; but it is most esteemed, and its flavour higher, when it partakes a little of the green, the influence of air and light benefiting it in other points of view as well as in colour. But if *Sea-kale* be forced in the same place it must be kept from the light; for, contrary to most vegetables, it is best when denied access to fresh air, and a blanched condition is the only one in which it is admissible at table; and the quicker the growth, the more tender the produce, only at this early season it does not grow so fast as in March or April. In forcing, however, it merely wants to grow in the dark, and need not be blanched by any substance surrounding it. *Rhubarb*, like *Asparagus*, is improved by access to the air; so that when all three are forced in one place, means must be taken to keep the Kale in darkness at all times, the others may have all the light they can get consistent with their safety as delicately forced articles.

At this season, *Potatoes* may also be put in to force; in fact, where they are wanted early they ought to have been in before. Beds of heating material, covered with dry earth, and the Potatoes planted there, will, in a usual way, go on all right; but more particulars will be given another week. But it is considered good practice to partially force or start the tuber in pots first, and then plant them out; where, therefore, there is room for a quantity of 5-inch pots to stand on any warm place (it need not be very light) let them be filled with good, leafy-mould and fresh earth mixed, and a single tuber put in each, merely deep enough to be covered, and that is all; they will speedily fill the pots with roots, when they may be planted out at once into some prepared bed, the object being to delay the making up of that bed somewhat later, so as to give it a better chance to maintain its heat until the crop be gathered. As a separate article will likely be given on this head, I will only advise the amateur, who has no other convenience, to place a few on the border or floor of some heated house or pit, and they will speedily sprout out and grow; a little leafy matter under them and over them, too, will enable them to be lifted with roots uninjured; and care being taken in placing them all in their proper place at planting time, this plan may be carried out on a large scale, as well as in frames, and a corresponding early growth will be the result; not but that some mishaps may occur, as, for instance, planting them out-of-doors without protection, before the frosts and cold weather be all gone, where they will either perish through frost, or die the more lingering death by being starved, which they are sure to do if removed too hastily from a warm to a very cold situation. *Radishes* must have more air and light when they are forced, otherwise the elongation of the neck of the plant renders it ungainly.

J. ROBSON.

CONSEQUENCES.

By the Authoress of "*My Flowers*."

(Continued from page 112.)

THE moment in which Julia stood before her father as the detected wife of Mr. Grosvenor, dreadful as it must have been, was probably less dreadful than the period of terror

and deception that succeeded her unholy marriage. While she had to appear the thing she was not; while she observed the quiet, unsuspecting manner of her injured parent, and felt what a traitor he was fostering in his heart; while she had to act the part of innocence, with guilt gnawing and throbbing within, and every moment starting and trembling with fear of discovery,—her life must have been so bitter and burdensome, that the very disclosure and removal of the horrible secret must have been almost sweet. The indignation of an outraged and violent father was expected and borne with—and, no doubt, it was great and appalling—but, perhaps, even that was light compared with the yoke she had put with her own hands upon her own neck, and must carry, as best she might, till death severed the tie that bound her to Mr. Grosvenor.

When fairly embarked in open and avowed matrimony, Julia found at once what she had brought upon herself. Mr. Grosvenor was, to begin with, a Socinian:—that is to say, one who denies the divine nature of “the Lord who bought us,” thereby living “without God in the world;” for “whosoever denieth the Son, the same hath not the Father.” He was also uneducated, ignorant, violent, and quarrelsome; and his habits, in many ways, such as to make a wife such as Julia exceedingly unhappy. She was very young; very jealous of his affections; very quick and unguarded in her expressions; and wanting that requisite judgment that knows when to give a “soft answer,” and when to give no answer at all. In fact, no two young people could well enter upon life more uncomfortably.

Mr. Manners did not live long after the marriage of his daughter, and, on his decease, she became possessed of a handsome annuity; but money, though it may protect us from some bodily requirements, cannot procure mental, or domestic happiness, and in some cases it adds to our troubles. The earlier life of Mr. and Mrs. Grosvenor was unsettled and uncomfortable. Julia idolized her husband, but his habits and conduct made her miserable; and she had no one to blame but herself. On one occasion, the disobedient daughter acted the undutiful wife. She quitted her husband's roof, and took refuge in a lodging. No doubt, she was goaded to the utmost; but the vow is registered on high “For better, for worse,” “till death us do part;” and there is no back-door through which a woman can escape, when once she has spoken those solemn, binding words.

Sisters! let me warn you to think well before you utter them; they can *never be recalled*, and they never can be set aside without tremendous guilt. If, in a hasty hour, you become a wife, without thought of anything beyond the fancy of good looks, agreeable manner, or cleverness of mind, you are rushing into blackness of darkness indeed! While the power of deliverance remains, escape for your life. It is better to give up an object beloved, yea, even at the church door, than enter upon the most awful of all engagements lightly and unadvisedly. How many young people ask and answer each other every question but one, “What is the reason of the hope that is in you?” and on this one, *alone*, hangs every other! and how many of such married couples live to wish that they had never met!

Julia's affection for her husband was so great that he soon won her back again. The promises he made were as the morning dew; but she was willing to believe them, and in this turbulent way—half sunshine and half rain—they spent their time. Their walks and drives were generally disastrous; some fancied insult would rouse Mr. Grosvenor's wrath, frighten his wife, and cause confusion; and often her own smartness and sharpness would irritate and offend, and make their private hours uneasy ones.

Some years after their marriage, when they were drawing into middle life, circumstances arose which interrupted the payment of Mrs. Grosvenor's annuity, and they were obliged to give up all their comforts, and retire into seclusion. This must have been a sharp trial, and it lasted for many years; but, like most trials (if we could but see and feel their meaning), it was a blessing in disguise, at least to Mrs. Grosvenor. It might be said to be the happiest portion of her life; for though they were exposed to many privations, and obliged to live away from friends and relations, yet Mr. Grosvenor was removed from temptations which overcame him, and made his wife suffer. A retired, but beautifully seated village, in Wales, was the refuge they

sought, close to a lovely bay, with all the enchanting coast-scenery of that picturesque land around them, and sufficiently removed from the nearest town to make it tolerably inconvenient to reach it; although Mr. Grosvenor might sometimes be seen striding along the sands, on a large, bony, grey horse, with a greatcoat flying, a hunting-whip in his hands, and almost the last *queue* that remained in fashion peering from beneath his hat.

Mrs. Grosvenor's delight was her quiet cottage; her little domestic matters; and her poor neighbours, to whom she was a real blessing. In all their sicknesses, troubles, and wants, they found ready and kind help from both; and in spite of dirt, which is common among the low classes of Welsh peasantry, there was never ending interest in all their doings. They are such a warm-hearted, affectionate people, that they soon gain the heart, and attach themselves very strongly in their turn. I have known instances of this kind, almost amounting to devotion, when we ourselves lived among them; and I am sure the memory of Mr. and Mrs. Grosvenor yet lives in the hearts of those who remember them resident among them, and doing all the good their limited means allowed.

Mrs. Grosvenor had her bitters, nevertheless. She was always exposed to her husband's violence, both of temper and language; to his turn for spirits; and, above all, his horrible opinions whenever he was led to converse with friends on the subject of religion. She would sit shivering with pain and terror, and her attempts to interrupt the discourse would generally bring wrath upon her own head, and make matters worse.

Alas! for domestic happiness, when young people rush into matrimony like maniacs: in extacies at the outside show, and wholly regardless of that which only can ensure its enjoyment! There is no pledge, no security, for *anything but misery*, when domestic life is thus wildly entered upon, and God is not in any one of our thoughts. The Lord is a jealous God, and He has bid us give Him *our hearts*. Now if we not only give them entirely to another—and that other one who knows Him only by report, and that not well—but likewise cast behind us, and forget the Lord, neither consider Him in any of our ways, He will plead His own cause; yea, and *avenge* it. He will blow upon our schemes, frustrate, or embitter them. He will cause us to feed upon ashes, and taste the bitter fruits of our own time. Unless we build, both for time and eternity, upon “*the Rock*,” our house must surely fall.

(To be continued.)

DIOSCOREA BATATAS, OR CHINESE YAM.

As I have not seen any account in THE COTTAGE GARDENER of the Chinese Yam, and having so many inquiries as what it is like, I have sent you an outline of the tubers of two plants, with a few statements of its culture by me in the gardens of R. C. L. Bevan, Esq., Trent Park, East Barnet, Herts. In the spring of 1855, Mr. Cutbush, of the Highgate Nurseries, sent me ten small tubers for trial, the largest no bigger than a marrow pea. On the 14th of March, I planted them in a pot half-filled with crocks, in loam, sand, and leaf-mould, placed them in a house where the Vines were just breaking; in about a month, seven made their appearance, which I planted on the 30th April in small pots, placed them in a cooler house till the 21st of June, when I planted them on a bed of leaves and common garden mould, under glass, which had previously been occupied with Ash-leaf Potatoes; they seemed to make but little progress all summer, but on taking them up on the 10th of November, I was surprised to find tubers varying in length from six to eighteen inches, the circumference in the thickest parts four-and-a-half inches. Taking into account the very small size of the tubers when I planted, I consider the produce very large, I think, by planting strong sets early another season, without artificial heat, which they evidently dislike, I shall be able to add a very valuable addition to the good things of my worthy employer's table.—J. SIBBON, Gardener.

TESTACELLUS SCUTULUM.

IN the spring of this year, I one damp evening discovered, on my strawberry-bed, an enormous number of slugs, of an extraordinary length, size, and appearance, at which I was greatly alarmed for the safety of my crop of fruit, and at once set to work destroying them; and I continued nightly to search for and destroy every one I could find, until I had succeeded in very considerably diminishing their numbers. I observed—and it occurred to me as strange—that I invariably found them crawling upon the ground, and never upon the foliage, or fruit; and also the almost entire absence of injury to the fruit, or foliage, in contradistinction to previous years; when, on one occasion (now three or four years since), I had my crop of strawberries almost entirely destroyed from the ravages committed by the slug.

About a fortnight since, I observed one of these creatures devouring a large earth-worm, which, from my ignorance of the existence of a carnivorous slug, caused me to make some inquiries relative to its identity and habits; and it turns out that it is the *Testacella scutulum*, or Teneriffe Testacella, that I have been destroying, which, it appears, feeds upon earth-worms. But the query I want answered is, whether they do not also feed upon the common slug. This occurred to me as probable; and the idea has been strengthened by my having found, a few days since, one which was injured—apparently the head partly eaten off—in the same hole with one of the *Testacella scutulum*, together with the fact of the absence of the common slug in that part of my garden (viz., the strawberry-bed) where the *Testacella scutulum* abounds; because, should this be the case, it ought to be generally known, as of course, under such circumstances, the *Testacella scutulum* would be a most valuable acquisition to our gardens, or even to the farmer, provided that it is in no way injurious to vegetation, either from its feeding or habits.

Any information you or any of your correspondents could give upon these points would, I think, be valuable to the cultivators of the soil generally, and most thankfully received by—JOHN DENNY, *Stoke-Newington*.

(THE following extract from the "Penny Cyclopædia" may give the information required about this species of slug:—

"Shell external, solid, auriform, depressed, with the spire more or less projecting, having a very large oval aperture; the right lip simple and trenchant, the left convex and reflected; the shell covers the posterior part of the pulmonary cavity.

"The number of species given by Lamarck is one only, and though M. Deshayes, in his tables, makes the number two, one only is recorded in the last edition of Lamarck. Mr. G. B. Sowerby figures and describes three:—*Testacella haliotideus*, *Scutulum*, and *Maugei*.

"History, Habits, &c.—This form appears to have been first noticed by M. Dugué, in a garden at Dieppe, in 1740, but it does not seem to have attracted much attention till M. Maugé, some years since, brought home specimens from Teneriffe. It has also been found, says Mr. Sowerby, in several parts of France and in Spain, and more lately in a garden at Bristol. Some specimens from the last-mentioned place have been handed to us by Mr. Miller, of that city. It feeds upon Earth-worms, having the power of elongating its body to such a degree that it is able to follow them in all their subterranean windings. We have observed them attentively, and were rather surprised that an animal generally so extremely sluggish in its notions, after discovering its prey by means of its tentacula, thrusting from its large mouth its white crenulated revolute tongue, should instantly seize upon with extraordinary rapidity, and firmly retain, an earth-worm of much greater size and apparent strength than itself, but which, by its utmost exertions, is unable to escape. Mr. Sowerby adds, that De Ferussac and Cuvier consider this to be the only carnivorous terrestrial mollusk. De Ferussac remarked, that the simple gelatinous contractile mantle of the animal, hidden habitually under the shell, is divided into many lobes, capable of enveloping the whole body, by an extraordinary development, when the animal finds it necessary to protect itself from the consequences of too great-dryness.

"Localities.—*Testacella haliotideus* inhabits the south of France.

"*Test. maugei* is an inhabitant of Teneriffe, but naturalized at Bristol; and

"*Test. scutulum*, which was discovered in a garden at Lambeth, may, in the opinion of Mr. Sowerby, be considered a native of this island.")

BREEDING CARP.

"IN reply to a "A CORRESPONDENT," who is anxious to know the best manner of rearing Carp, I would observe, that it is a subject which is little considered in England, where there are very few with any relative practical knowledge; and there are very few works in the English language that can be relied upon. In Germany, large revenues are derived from breeding Carp; it is, therefore, in that language most works relating to the subject are to be found; but there is a very excellent little work in French, called the "Manuel du Pecheur," which, to a Carp breeder, would be useful.

Having never read of, heard of, or seen such an extraordinary circumstance as three years spawn in one fish, I cannot tell your correspondent how to remedy it; but so far as my little knowledge goes, I will tell him how to breed Carp successfully.

In the first place, three ponds are required; the spawning, the nursery, and the stock-pond. They should be, at least, 100 yards apart, protected from the north-east winds, but no trees to overshadow them, with a nice soft stream of running water, and, if possible, the drainage of the farm-yard, or the back-yard of a house, more particularly in the stock-pond, from whence the table supply is taken.

The soil in which the pond is placed should not be clay, as the iron in the clay stops the breeding; but if, unfortunately, you have only clay, then lay on a thick coating of gravel and sand, turf it some distance down on the sides; the bottom should not be more than three feet deep, except where the canal is made for the water to run out; and be particular to keep it free from any metals that might corrode. The size of these ponds should be in proportion as 4, 5, and 6; that is, supposing No. 1 to be four roods, No. 2 five roods, and No. 3 six roods, and to every rood of the spawning pond should be put in 50 brood Carp and 100 male, 5 brood and 5 male Tench, and 5 brood and 5 male Jack; no other fish. Avoid Eels, and, above all, Frogs.

Jack is put in, because, if the Carp were allowed to spawn without some of it being destroyed, the pond would be overstocked. A Carp weighing one pound and a-half will contain, at least, 300,000 eggs; as many as 312,000 has been counted; and in one of nine pounds, 621,000. The Tench is put in to keep the fish healthy: it is the doctor, not only for Carp, but for all freshwater fish. If "A Correspondent" has none in his pond, let him put some in at once; now is the season.

The spawning pond should contain *Potamogeton natans*, commonly called (I think) Tench Weed, and *Ranunculus fluitans*, or Water Crowfoot; against the former they rub their sides when about to spawn, and on the latter they cast it. It requires two or even three male Carp to fecundate the eggs of one brood Carp; and it is not unusual to see the female, when spawning, attended by four or five males. A circumstance I have not known in any other freshwater fish, but which is common in salt-water fish.

At the expiration of the first twelvemonths, about April or May, according to the atmosphere, the spawning-pond should be emptied into the nursery; and, at the end of twelvemonths, the nursery into the stock-pond; and so on, in rotation, keeping the brood fish in the spawning-pond, as they are good up to nine years old. In the last pond they should remain twelvemonths, or longer; in fact, if they are fed as they ought to be, any quantity may be kept, and a nice supply of the three kinds of fish may be obtained. Boiled potatoes, spoilt Indian meal, &c., for the Carp and Tench, and the entrails of poultry, snails, slugs, &c., for the Jack; and when they have plenty they will not touch other fish.

I prefer having, in addition, a small pond, made of gravel,

or rock, in which to place the Carp, with a few Tench, for six weeks before they are wanted for the table, and to feed them with crumbs of bread, to which has been added a few drops of oil of spike. Although I am not so infatuated as a certain Commissioner of Fisheries in Ireland, who, on a visit to a bay on the west coast of Ireland, advised the fishermen to manure the sea if they wanted to catch fish; his manure consisted of the entrails of the fish they caught, soaked in oil of spike, and thrown into the sea; from experience, I can say, that the oil of spike gives a fine flavour to the fish, makes it feed better, and eat firmer.—G. W.

QUERIES AND ANSWERS.

GARDENING.

TREE ROOTS MUST NOT BE COVERED DEEPLY.

"During the time of making some alterations in my employer's front garden, it was found needful, for the beauty of the place, to fill up a piece of ground occupied by some Sycamores and Elms. Three of these trees would have to be filled up to the height of four or five feet. Upon consulting the skill of the neighbourhood, whether these trees must be filled up with the soil close to the stem of the tree, the verdict was given that they must be walled round from the root to the required height, two feet from the bole of the tree, else death would be the consequence.

"Now, these holes of four or five feet deep are in a close proximity to the house, and near to where the juveniles take their exercise; if one of them, in skipping about, should have the misfortune to fall in, a dislocated neck, or fractured limb, might be the consequence. Now, Mr. Editor, I want your opinion on this knotty question. Would it really kill the trees if these holes were filled up with soil, or ashes, or broken stones, or anything, so as to make them less dangerous than they are at present?

"We have, in the back garden, an arbour of wire-work; in the winter season it looks very bare. Hops are grown over in summer. Would Ivy cover it, and fraternise with the Hops?—EXCELSIOR."

[The skill of your neighbourhood is quite correct. Your trees must have a wall built up at two or three feet distance from the bole of each tree. If the roots are entirely buried close up to the stems, four or five feet deep, they will certainly die. Elm-trees may put out fresh roots in the well formed by the walls, and if they do so, then you may gradually fill up the wells. Sycamores do not root so freely.

To prevent the juveniles, as you term them, falling into the wells, you might easily cover these over with strong wire, close enough in mesh to catch a juvenile ball, which wire would not prevent air descending to the roots, and thus preserve your trees alive.

Ivy would certainly, in time, cover the wire-work of your arbour in the back garden, and Hops would grow along with it; but the latter must be kept within bounds, or it would smother the Ivy in summer.]

THRIPS ON SIKKIM RHODODENDRONS.—SKIMMIA JAPONICA.—DESFONTAINEA SPINOSA.

"I have several young Sikkim Rhododendrons, and some Hybrid ditto, which have had their leaves affected, more or less, by what I supposed might be the very dry season, in my very dry and sandy soil, during the summer and autumn.

"They are, however, all planted in excellent bog earth, three feet deep. I have since been told, that the worst of insect pests, Thrips, has been the cause of these blighted leaves. I enclose you a specimen of the worst, from the Sikkim Rhododendron *Lancifolium*. A small plant at present; but, with the exception of the affected leaves, very strong and healthy; and having, with twelve others of the kind, withstood the last seven winters and spring extremely well.

"I should be glad to see your opinion as to the cause of the evil; and, if it is Thrips, the way to destroy or guard against it in future? Not very easy, I fear, in a shrubbery.

"I have lately had very nice young plants of *Skimmia Japonica* and *Desfontainea spinosa* in pots. Would you plant them out at once; or keep them in the greenhouse till next spring?—H. A."

[No. They ought to stand in a cold pit till the middle of April, unless you are quite certain they were never in heat; in that case, you might, or rather ought, to plant them out now, and the sooner the better. The *Thrips* sucked the leaf as dry as a pie-crust, and this insect will give you a vast deal of trouble before you can get rid of it. No insect is more injurious to plants, and none is half so difficult to eradicate completely. Three years is the shortest period in which it can be got rid of, when it has been allowed to get the mastery, as with you; but if you had taken the precaution of smoking it, and then keeping it in a damp state with tobacco-liquor for the next ten days, or a fortnight, you might have been freed from it by that time. As your plants are in a good bed, try the clay paint on the wood, after removing all the affected leaves.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

BIRMINGHAM. 11th to 14th of December. Sec., J. Morgan, jun., Esq. Entries closed November 10th.

DURHAM AND NORTH YORKSHIRE, at Darlington, 6th and 7th of December. Sec., J. Hodgson, Esq. Entries closed.

ESSEX. Dec. 27th, 28th, and 29th, at Colchester. Secs. Mr. G. E. Attwood, and Mr. W. A. Warwick. Entries close December 15th.

GLOUCESTERSHIRE AGRICULTURAL. At Cirencester, Dec. 6th. Sec. E. Trinder, Esq., Cirencester.

HANTS (SOUTH). Dec. 31st., and Jan. 1st., at Fareham. Sec. James James, Esq., Fareham.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. Sec. R. Hawksley, jun., Esq., Southwell. Entries closed November 20th.

PRESTON AND NORTH LANCASHIRE. Jan. 9th and 10th, at Preston. Secs. Messrs. Burnett, Leigh, and Hayhurst, Preston.

VALE OF AYLESBURY. January 2nd and 3rd. Secs. J. D. Muddiman, and Jas. Allen. Entries close December 20th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

WHEN next our weekly sheet is in the hands of our readers, the great Poultry Show of the year will be open. Birmingham will be crowded with visitors, and the winners at every show throughout the kingdom will have met to try their fortune against each other. Whether we view it as the *ne plus ultra* of a show, or as the place of all others where the amateur, the tyro, or the breeder for profit should resort, it stands alone. Apart from any other consideration, it claims admiration for the magnitude of the enterprise. Thousands were invested, and the only certain return which could be looked for was from the exhibition of cattle and poultry during four days in December. But it not only demands admiration, it is entitled to respect. Like *Cæsar's* wife, it should be above suspicion; and it is so. It has gone on for years, and increases its claim every succeeding exhibition to greater support and respect from all who take any interest in the subject. The proof of this was, that three years ago the entries reached the number of two thousand pens; and although a large space was devoted beside that originally set apart for Poultry, yet there was not room for all. There was then a wise resolution passed, that no subscriber should exhibit more than four pens, and yet they number sixteen hundred entries. When it is remembered none but the *élite* are deemed fit for competition, it will be seen how great the treat must be to all.

We say nothing to those who have been, they are sure to go again; but to those who have not, we say,—If you would see of what the Poultry movement is capable; how a show should be managed; and if you would form an idea of the beauty of the different breeds

that make one up, we advise you by all means to visit the Birmingham and Midland Counties Exhibition.

"SIR," said a parishioner to the clergyman of a rural district, after the usual Sunday morning service, "you have preached that same sermon once a year for the last ten years." "And so I will, my friend, and for the next ten, unless you put in practice that which it inculcates," was the reply.

The same may be said of many of our poultry efforts, and we shall be disposed to give the same answer.

After January there will be no more poultry shows for some months, and even now, those who wish to breed from prize, or highly esteemed, birds, must separate them from others, in order to be sure they can depend on the produce of their eggs. By anticipation, we are then dealing with the future; and with the experience of the past to guide us, we should like to give such instructions as may entitle us to the thanks of those who may reap a pecuniary benefit from them, and to the respect and belief of those who may merely test the truth of what we write.

For a long time, surplus vegetables raised in all gardens of every degree have been sold. Cattle are bred and fed by all classes exclusively for the market; so are horses; but there seems to be a reluctance to breed poultry with the same view. An imaginary market floats in the ideas of many, where all birds are sold alive, by private contract, and at exhibition prices. This is a real castle in the air. It has been the lot of one or two yards to be so fortunate as to command the call of the market at great prices, but we doubt if it will ever again be done to the same extent. Poultry may be profitable to all; but where one will make it by prize birds, a hundred may obtain the same object by table poultry. Exhibition prizes are only made at exhibitions. Circumstances warrant them; the fowls there purchased are successful, and their value is ruled by the quality and number of the competitors; while others are bought only in the hope of success. Few need go to a poultry show to learn the difference between hope and realisation.

But why should not poultry be reared for the market with the same care as oxen, sheep, or pigs? It would pay as well as either. It may be classed with hothouse fruit. Part of much of this that is raised finds its way to market, being more than is required for the consumption of a family. This is now accepted, and no one would shrink from admitting it. Formerly, a nobleman, or gentleman, would not have sold the game of his estate; now, it is common, and openly avowed. It would seem, then, that a certain time is required before these plain things can be received and admitted by the public. Let us hope this time is arrived for poultry, and that the increasing attention given to it will not be confined entirely to exhibitions, but extend to the less glorious but equally useful task of providing a delicious article of food, and a luxury which may be indulged in at all times without imputation of extravagance.

Some will, perhaps, here meet us by saying, they have already tried, and find that poultry does not make a large price "*about them*." The mistake is, they rear it at the wrong time of the year. We must again illustrate our position by referring to garden produce. Grapes, Peas, Asparagus, and such like, are most valuable when produced before the natural season. So are poultry.

Left to themselves, fowls will produce food fit for the table in July and August; but with proper and careful management, they may be brought to market in April, May, and June, when they will make large prices. This

will not be accomplished without trouble and painstaking, and we do not address ourselves to opulent amateurs, but to those who require a hobby, to the self-supporting, and who will only like it the more if profitable. It was, formerly, more difficult than it is now, from the scarcity of broody hens in the winter. Cochin-Chinas have obviated that.

Our advice is, then, to such as are disposed to try, to get, now, six or eight pullets of that breed, about five months old; they will want to sit early in the year; put them on Dorking eggs, and the produce reared and fattened, will, in April and May, certainly realise from fifty to sixty shillings per dozen. The outlay will be small, the trouble considerable, and the return certain. The best among these may be saved for stock, or for exhibition.

That such things were done centuries ago, and by those of gentle blood, we would prove by a quotation from the "*Maiden and married life of Mary Powell, afterwards Mistress Milton*." We read, at date May 7, 1643:—"New misfortunes in the poultrie yard; poor mother's loyalty cannot stand the demand for the best chickens, ducklings, &c., for the use of His Majesty's officers since they have been at Oxford."

The last spring, was, perhaps, an exceptional one, as there was a real dearth of poultry, consequent on the severity of the weather in January and February; but many thousands of fowls were sold in London at seven shillings each, and in market by the dozen.

It is a regular trade in Surrey, Sussex, and part of Kent, and those who follow it find it pays them; but why should it be confined to those counties? The prize-lists will tell us that the Dorkings will thrive in other parts, for the prizes for the best birds go all over the kingdom, and we cannot see why they cannot be fed for the table as well as bred for stock.

VALE OF AYLESBURY POULTRY ASSOCIATION PRIZE LIST.

At the Show on the 2nd and 3rd of January next, with becoming care of the local produce, *Ducks* are put first on the list. Four prizes of 30s., 20s., 10s., and 5s., respectively, are offered for White Aylesbury, Rouen, and any other variety of ducks. For Spanish, coloured Dorking, Cochin-China (Cinnamon or Buff), Cochin-China (Brown or Partridge-feathered), Cochin-China (White or Black), and Shanghai (Grey Brahma Pootra). The last a totally arbitrary distinction, for all Cochin-Chinas are Shanghaes. Only three prizes of 20s., 10s., and 5s., are offered in each class for White Dorkings, Game (Black-breasted and other Reds), Game (any other colour), Golden-pencilled Hamburgs, Golden-spangled Hamburgs, Silver-pencilled Hamburgs, Silver-spangled Hamburgs, Polands (Black with White Crests), Polands (any other colour). Any other breed of fowl. Bantams (Gold-laced), Bantams (Silver-laced), Bantams (any colour), Geese, Turkeys. One male and two females of each to be exhibited. The imperfect wording and classification of the above needs no comment. Entries close December 20th. Secretaries, J. D. Muddiman, and Jas. Allen, Esqs., Judges Lodge, Aylesbury.

THE ESSEX ASSOCIATION FOR IMPROVING THE BREEDS OF POULTRY.

At a meeting of the Committee of this Association, held at Colchester, on Saturday, W. Fisher Hobbs, Esq., in the chair, the schedule of prizes for the exhibition of the Society, on the 27th, 28th, and 29th of December, was arranged, and upwards of 100 guineas will be offered in premiums for the best specimens in the various classes. In addition to which, the Colchester Cup, a piece of plate

value twenty guineas, will be offered for the best collection of poultry, open to all England. Mr. Fisher Hobbs also offers a piece of plate, value five guineas, for the best collection exhibited from Essex or Suffolk. Cooke's Registered Exhibition Pen will be used on this occasion.

TAUNTON AND SOMERSET POULTRY EXHIBITION.

This took place at Taunton on the 23rd and 24th of November, under an extensive tent, specially erected for the occasion. Very rarely, indeed, has a poultry show enjoyed so high a patronage, or been possessed of so thoroughly hard-working a committee. The projectors were gentlemen long known as poultry amateurs, well conversant with the arduous duties that awaited them, and determined that success should not be wanting, if *personal* exertion could secure it. All the arrangements were worthy of our highest praise; nothing that forethought could devise, or manual labour could execute, were allowed to remain undone; therefore, where success was so well merited, it gives us additional pleasure to say it met with its due reward. The attendance on both days was very good. On entering the tent, we were particularly interested in the very general diffusion of light throughout the whole; this feature, where attainable, much equalises the chances of success among the competitors, for the fact is everywhere notorious among amateurs of poultry, that good fowls are seriously injured in their owner's hopes of prize-taking from being "placed in a bad light."

No possible complaint of this nature could, however, be adduced at the Taunton meeting; the pens were airy, convenient, and kept extremely clean, the avenues between the rows were also spacious, and the highly respectable company, therefore, had every opportunity of closely examining any particular group of poultry that arrested their attention.

Another most prominent feature was the almost total absence of indifferent specimens of *any kind whatever*; from this cause, therefore, the competition has not been surpassed at any previous meeting in the West of England. Mr. Edward Hewitt, of Eden Cottage, Spark Brook, near Birmingham, acted as sole judge on the occasion, and the committee expressed themselves very highly on the expedition with which that gentleman fulfilled his arduous duties. The entries, with a few extra lots, not appearing in the catalogue, slightly exceeded five hundred pens.

In addition to the usual premiums, eight pieces of plate were given away to the lucky possessors of the best specimens, and the rivalry for these *lasting* mementoes of their poultry achievements, manifested, pretty strongly, how far more valued such premiums are regarded by their owners, than where they consist of money prizes only. The interest excited was greatly increased, also, by an *empty pen being devoted to the exhibition of the plate*; around this congregated numbers of admirers, and the future possessors, of course, were generally to be found near this locality.

The *Spanish* were very good, though a glance told us not a few leading specimens were "absent on leave," awaiting the result of the approaching trial of merit at Birmingham. The chicken were especially superior, the older birds (in most cases) not having nearly, as yet, completed their moult. In *Grey Dorkings* the exhibition abounded; indeed, here the competition was most severe, all being very good. In the chicken class we are told the judge remarked, so excellent were they, "that a dozen prizes (instead of two only) could have been very fairly distributed." It will be seen, a pen of *very light-coloured* greys, belonging to Mr. Loder, of the Beeches, Crawley, Sussex, secured for their fortunate owner the principal premium in their class. They were very well matched, and amazingly weighty birds. The second prize fell to the lot of Mr. William Bromley, of Smithfield, Birmingham. These were very young (only five months old), but of gigantic proportions, and shown in that really first-rate condition for which fowls from this gentleman's yard are fast becoming so notorious. Closely pressing upon the winners were two pens of highly meritorious Dorkings, the property of W. Belcher, Esq., of

Abingdon, and several others of equally deserving specimens. The *White Dorkings*, more especially the chicken, were unusually superior. The *Cochins* exceeded by far those to which we have of late been accustomed, and the restoration of the original characteristics of these undoubtedly *useful* fowls to a close approach to what were considered "*essentials*," before colour only was most unduly allowed the precedence, became universally admitted. It is well this revulsion in public estimation is at length taking place, for no possible doubt exists, that fowls of the conformation alluded to are far more hardy, and produce many more eggs, *during stress of severe weather*, than the more spare and ill-clad ones that have, of late, but too frequently been almost the *only* occupants of our exhibition pens. The Rev. G. F. Hodson, shone, as usual, in Partridge birds, taking *both* first prizes;—"the cup for Cochins of any variety;" and, lastly (though not least) held the much envied position of winner of the "silver cup for the best general collection of poultry."

From reports that have reached our ears, it was circulated, that at a late fire occurring on that gentleman's premises, the *whole* of his Partridge-coloured birds fell victims to the flames; it happily turns out to be otherwise; only the winners of the Anerley cup, and a few less valuable, were so destroyed; and the Taunton Exhibition fully proves that enough of these highly-reputed strain still remain to ensure a continuance of success to their indefatigable and spirited owner.

The *Malays* were not so good as we anticipated to find in this locality. All the *Game* classes were well filled, and positively abounded with first-rate specimens; many of the *Hamburgs* were likewise exceedingly good. The Silver-spangled *Polands* were the best represented in the Poland classes, but the Black, with white crests, were very indifferent, as a collection. The *Sebright Bantams* embraced specimens from most of the principal breeders of this really elegant species, the emulation evinced being greatly increased by a silver cup being the proffered reward to the best pen of either variety.

Most of these pens of fowls were sadly out of plumage; and the great tendency to straw-colour (or a *very* light fawn), deteriorated the Silver-laced somewhat materially, in our opinion; still, the Judge finally awarded the cup to this variety. The same individual being also fortunate enough to secure the first prize in the Golden-laced *Sebrights*.

The *Pigeons* afforded a very rich treat to fanciers of these birds; every *fancy* variety was well represented, and after the closest competition we have lately been witnesses of, the prizes proved distributed throughout the kingdom.

The weather was exceedingly auspicious, and the committee have determined that the show just past by shall be the first of an annual meeting of like character, to be held for the South and Western counties; and in such experienced hands, we do not doubt it will very speedily rank among the chief of our poultry exhibitions.

Last week we gave a general list of the poultry prize-takers; we now give a list of the cup takers, and of the pigeon prize-takers.

CUPS.

The following gentlemen, in addition to the Society's Prizes, received pieces of Plate:—

A. H. Popham, Esq., for *Coloured Dorkings*.
Rev. G. F. Hodson, for *Partridge Cochins-China*.
J. Marshall, Esq., for *Gold-pencilled Hamburg Chicken*.
J. R. Rodbard, Esq., for *Game Fowls*.
Mr. J. Leighton, for *Malay Chicken*.
M. Leno, Esq., jun., for *Silver-laced Bantams*.
W. G. K. Breavington, Esq., for *Silver Polands*.

PIGEONS.

CARRIERS.—363. Prize, Mr. Samuel Summerhayes, Taunton.
TUMBLERS.—369. Prize, Dr. Rogers, Honiton, Devon.
OWLS.—380. Prize, Mr. W. H. Simpson, Islington, Birmingham.
NUNS.—385. Prize, Mr. Thomas Twose, Bridgwater.
TURBITS.—395. Prize, Mr. Edward H. Burge, Taunton. Highly Commended.—399. Charles Bluett, Esq., Taunton.
JACOBINS.—414. Prize, Mr. F. Esquilant, Oxford-street, London. Commended.—405. Mr. Edward H. Burge, Taunton. 407. Mr. Francis A. Lavender, Biddenham, near Bedford.
FANTAILS.—420. Prize, Charles Richard Titterton, Birmingham. Highly Commended.—419. John Marshall, Esq., Belmont, Taunton. 423. Miss Northcote, Upton Pynes, Exeter.

TRUMPETERS.—427. Prize, Charles R. Titterton, Birmingham. Commended.—429. Mr. Thomas Twose, Bridgwater.

POUTERS.—437. Prize, Mr. Samuel Summerhayes, Taunton.

BARBS.—440. Prize, Rev. G. F. Hodson, North Petherton.

DRAGONS.—457. Prize, Mr. Samuel Summerhayes, Taunton.

FOR THE BEST PAIR OF ANY OTHER VARIETY.—472. Prize, Mr. Edward A. Lingard, Birmingham. (Runts.) 482. Prize, Charles Bluett, Esq., Taunton. (Archangels.) Commended.—474. Capt. H. Adney, Lympstone. (Helmets). 478. Mr. S. C. Baker, Chelsea. (Spots.) 480. J. Percival, Esq., Harborne, Birmingham. (Frill Cocks.)

The Silver Medal for the best collection of Pigeons was awarded to Mr. S. Summerhayes.

THE JUDGING OF PIGEONS.

PERMIT me, as an old Pigeon fancier, to offer a remark on the judging of a pen of Pigeons, for a special prize—as a silver cup—for the best pen of Pigeons, consisting of *four pairs of different sorts*, as was the case at Anerley, and is the case for the Birmingham Cup.

One correspondent contends that the best four pairs of *any sorts* should have the cup. I am quite sure that no experienced breeder of pigeons can agree in such an opinion.

But let us look at the matter. Let us take four of “any sort” of Pigeons, and then take four of the *crack sorts*, and compare them, and think over the matter. Suppose the “any sort” consisted of four very pretty, but still plentiful and easily bred sorts, *i. e.*, Nuns, Bards, Runts, and Fantails. Every Pigeon fancier knows that these sorts can be obtained for a few shillings a pair—that in breeding them true to colour and shape there is no difficulty, or even uncertainty—like father, like son, is the rule here. There is no credit, no trouble in breeding good specimens of these, and such birds as these.

But now for the crack sorts. *The Pigeons of the Fancy*, viz., Almond Tumblers, Pouters, and Carriers (there really is not a fourth) so that the exhibitor must take his choice of the other sorts, and add it to his pen of four; perhaps a Trumpeter, or Jack would be selected. Now, these three sorts will cost nearly as many guineas as the others will cost shillings, if first-rate birds—five, ten, or even fifteen guineas will be the price of a really first-rate pair of birds. The reason is, that it is so difficult a matter to breed thorough good birds with all, or even with most, of the *properties*. Great skill and experience is often required, so as to match the parent birds (Almond Tumblers, for instance), that the young ones may possess the good properties of each of the parents; for few, very few, parent birds are up to the mark in colour, shape, size, and marking.

A clever fancier may take, for example, a cock bird of splendid marking and colour, but which may be wanting in shape—he matches him with a hen of perfect shape, but may be wanting in correct marking. Now, the chance is—I say chance—that he may get a young one, now and then, that combines the good properties of each of the parents—*i. e.*, the good *shape* of the one, with the good *marking* of the other; and then he rejoices in happy fortune. If he gets two, or even one pair of such wonders, out of twenty, he thinks himself well compensated! A pair of first-rate Pouters is still a greater rarity than Almond Tumblers; and £12 or £15 would easily be got for a pair of first-rate “Yellow-pied.” With Carriers, there is less difficulty, certainly; though this bird is justly styled the “King of Pigeons.”

Surely, surely, then, in awarding “the Cup” for the best pen of four pairs of pigeons, the Judges would keep in mind all these things, and give it to the most worthy birds—birds with properties, and these difficult of attainment.—When by labour, skill, and perseverance, they are obtained, surely they should have their reward. It may be said, “But some exhibitor may buy such birds ready-made.” He will pay dearly for his whistle if he does, and deserves the cup for his pluck, which, after all, will be but a poor pecuniary recompense.—SAM SLICK.

DUBLIN SOCIETY'S PROPOSED BASIS FOR JUDGING POULTRY.

OTHERS, as well as myself, have been somewhat surprised at the spirit in which “The Proposed Basis for Uniformity of Judgment at Poultry Exhibitions,” has been attempted to be replied to by your correspondent who styles himself “D,” in your number of 13th inst. It must be admitted, that at present much difference of opinion does exist, both as to nomenclature and the points of perfection of the several varieties; and one would suppose that any attempt to remedy that would have been met in a spirit of candid inquiry, and that man who is obliged to resort to the shafts of ridicule gives *prima facie* evidence that he is not able to meet the subject in any other way; to such gentlemen, “The Proposed Basis” was not intended to be submitted.

Your correspondent “D” seems altogether to have overlooked the title of the paper, which does not assume to be perfect, but is a *Proposed Basis* put forward for the purpose of inviting *rational discussion*, to find out how the different views of amateurs may be reconciled, and their inaccuracies corrected. I beg to inform “D” that I have been favoured, in a very different style, by letters from Mr. Tegetmeier, and Mr. B. P. Brent, well-known names, and when I inform “D” that they concur in the principles of the basis, and that any dissents on their part can be answered by simple explanation, perhaps “D” may not be inclined to be quite so confident, nor suppose the subject so easily dismissed as he appears to think. In the first place, I must altogether object to replying to anonymous correspondents. Let any opponent state his name and address, and then the public, on inquiry, can understand the relative value of various, and, perhaps, clashing opinions. I beg to inform “D” that I am not one of the *seri studiorum* class; my experience ranges over more than twenty years; that my reading is not confined to my own country; and that I have travelled much in pursuit of my favourite amusement, and in doing so acquired much information; and if the discussion be carried on in a spirit of inquiry, I may be able to answer all fair objections, and therefore be entitled to fair consideration.

In the discussion of any subject of scientific research, technical terms must be used, as the shortest means of conveying to the mind what is intended, and the Basis is therefore drawn out so as to embrace the principal breeds and their most striking characteristics, and not as an extended description of the varied forms incidental to cultivation; nor is it a position of mine that any permanent variety should be excluded. I think the existence of such a work as *THE COTTAGE GARDENER* is a boon to society, as tending to an extended knowledge of any subject, but it ceases to be so, if real inquirers are driven from the field, by an unwillingness to be made the butt of ridiculous remarks.

I beg further to object to a garbled statement, more particularly viewed through a coloured medium. Let the proposed Basis be put forward as it stands, and I have no doubt but that many of your intelligent readers will come forward and discuss it, and thus it may be the means of having a *Basis* so regulated as to result in its universal adoption, and which I am most desirous of seeing accomplished.—R. P. WILLIAMS, *Dublin*.

I AGREE with most of “D’s” remarks on the Dublin Rules for Judges, but must take exception to those having reference to *Spangled Polands*. I have no hesitation in saying they are a laced breed, and his own words are the greatest proof that it is so. He naively says, “that the complaint at every show now is, that the spangled birds are all becoming laced.” Nothing can demonstrato the fact stronger; of course they become laced, and will continue to do so, notwithstanding that the spotted birds are selected for breeding from—it is natural to the breed. You cannot wash the blackamoor white. “D” should have put on his considering-cap, and have asked himself a question—whether it might not be possible that the fowls were in the right, and the judges wrong? He is quite correct in his definition of a spangle, but wrong in the premises. That they are called spangled is no proof that they should not be laced, but rather the reverse, if precedent goes for anything. The original name of the *Bantam* was Spangled, or Sebright,

and so known, for very many years, by the late Sir John Sebright, and a company of gentlemen amateurs, belonging to the "Feather Club," and to whom we are indebted for its production, and the lacing to the feather was obtained in the first instance from the Spangled Poland in question—a fact that may be easily verified by applying to any of the members of the Club, whose meetings were held at the Gray's Inn Coffee House (where I have often had the pleasure of attending), and proving that the Polands are not only a laced, but the only *original* laced breed that we have—a strong argument in favour of preserving it. The misconception is not with the amateur and breeder of Polands; he knows, from experience, that most of his best birds are laced; and if he can select a few, for the requirements of the Judge, sufficiently free from it in the body, he still finds it in wing and tail feathers. The mischief comes from those who have formed their opinion from the Hamburgh Polands, many of which were at one time sent over, but they will not bear comparison to the others in size, form, carriage, or constitution; lacing with them is the exception, either in the body or the crest—the latter is mostly white, or having *entire dark* feathers intermixed—not laced ones—hanging down one side of the head, and obstructing the sight—in fact, exactly like the engraving on the cover of Richardson's Poultry Book, and which he calls the Hamburgh fowl—evidently alluding to the Dutch breed; they are, like their congeners, the black with white crests, weakly, and much liable to the roup—a disease from which our spangled or laced variety is singularly exempt; and I do hope that those who object to lacing will well consider if they have any reasonable ground for so doing. I conclude, being unwilling to trespass further on your space.—B.

ANSWERS TO A QUESTION OR TWO.

In the number of the *Poultry Chronicle* for November 6th, my friend "Walter" (?) enquires "What birds are best adapted to a small enclosure;" and "What is the rule in bargaining for birds from strangers, &c.?" I fully agree with my friend in most of his remarks relative to Minorcas, Malays, Dorkings, Game, Hamburghs, &c., but my experience of Polands leads me to differ with him in some slight degree. If the Gold-spangled Hamburgh has been termed, by some amateurs, an aviary bird, much more has the noble-crested Poland tribe been considered to be. I have for some years kept every known colour of this beautiful variety, such as Gold, Silver, Buff, Blue, Grey, Black-crested Black, White-crested Black, White, &c., and have invariably found them as hardy, if not more hardy than almost any other kind, saving the Cochin; and as for laying, I think they are not a whit behind the major part of the feathered tribe.

Mine generally commence laying about the latter end of February, and keep it up until well nigh November, and as they rarely want to sit (though, by-the-by, I have had two or three Poland hens sit well this season, bring off and rear an average number of chicks, and prove themselves the very best of mothers), of course, the quantity of eggs laid during the season amounts to no despicable number. My Polands have the full range of a large yard, and a couple of acres of grass land, and are by no means better sheltered than other sorts.

I should recommend my friend "W. H.," in dealing with *strangers* at a distance, to send for the birds he wishes to purchase, remitting a post-office order *on receipt of goods*. But if the distant party be one who is known in the poultry world, or accustomed, from time to time, to advertise his surplus stock in *THE COTTAGE GARDENER*, then I think "W. H." would not be wrong in first remitting his post-office order for the birds he wishes to purchase, stipulating that the birds, if not approved, shall be returned to the seller *free of expense*, his money, of course, to be returned.

This I have myself done, and in this way have I myself been fairly dealt with, in repeated instances.

On referring to the number for November 6th, I find my remarks on the Polands corroborated by "One in the Ring," who says—"They are, and have been proverbially, good layers, which point is the greatest desideratum for parties

who wish to make poultry remunerative. I keep a large number of this class of birds, and find they produce quite above the average quantity of eggs."—GEORGE BOOTHBY, *Holme Cottage, Louth*.

THE HOUSEHOLD.

(We shall be much obliged by any of our readers sending us approved receipts in cookery, hints for household management, or any other domestic utilities, for insertion in this department of our columns.)

THE ONLY WAY TO PICKLE SALMON.—Take a whole fish, bone it, and cut it in pieces (good-sized square ones), place them in a jar with salt, allspice, and whole pepper; then tie a bladder on the top to prevent any water getting in, put it into a saucepan of boiling water, let it keep so for two hours, then take it out, and when quite cold, add as much cold vinegar as there is liquor, and the salmon will be delicious.—M. W.

TOMATO CATSUP.—G. L. C. recommends this receipt, which will be found excellent:—1 quart best vinegar, $\frac{1}{4}$ oz. mace, $\frac{1}{4}$ oz. cloves, $\frac{1}{2}$ oz. black pepper, $\frac{1}{2}$ oz. Jamaica pepper, $\frac{1}{2}$ oz. long pepper, $\frac{1}{2}$ oz. ginger, $\frac{1}{2}$ oz. mustard seed, 25 capsicums, 50 tomatoes, 6 heads of garlic, 1 stick of horseradish. On the 50 tomatoes throw $\frac{1}{2}$ lb. of salt, and let them stand three days. Boil the above ingredients (except the tomatoes) half-an-hour, then peel the tomatoes, and add them to it, boil them together half-an-hour, strain them through a sieve, and when cold bottle it.

BACON CURING.—In answer to your "Old Subscriber, Morayshire," I must state that it is as difficult to tell him how to cure bacon, as it is how to cook a potato. Most persons think that because a side of bacon turns out good with one particular pickle, that another should do the same in the like manner; because one potato is good when boiled one way, another should be equally as good when boiled in the same way; although your correspondent "S," in page 414 of your last volume, says, that for thirty years, in one family, all sorts have been tried by one plan of steaming. I should like to know his address, so as to send him some, by which he would find out that there are some "sorts" that will not cook by steam. I have had great experience in experimentalizing on hams and bacon, and, in the first place, I must state that the *same* pickle is not good for hams and bacon, with any kind of pig. This is well known to the large bacon curers both in England and Ireland, and they act accordingly. I am now residing in a county (Yorkshire) famous for its hams, but it cannot cure bacon; and why? Because the farmer's wife will cure both with the same pickle; and it is a common saying amongst them that they never can cure hams of the pigs fed on another farm. In fact, the whole difference consists in the feeding of the animal, the same as the potato grown on different soils, or wheat sown in the south or north of Europe. I have been in some of our largest curing houses: I will mention two;—the Russell's, of Limerick, and there the men know, by experience and touch, the moment the pig is cut open, the quantity of salt it requires, or soda; and if it is to be applied when the flesh is warm, or cold; or how long it should hang before the salt is applied. One of these houses, some years since, sent some of the most experienced curers to the United States, to cure, and send the goods over here, but it proved a failure; they could not cure fit for the English market, although there are plenty in the States that cure bacon quite equal to the Irish; this is only resulting from the difference in the feed. I have fed pigs on the American plan, with plenty of Indian meal, which every one who has partaken of American pork knows produces plenty of soft, oily, and unpleasant fat. I have, by a plan of pickling, hardened that fat equal to the best Wiltshire, but could never succeed with it when once pickled, although I understand some have succeeded in doing so, and sell it as best Irish bacon. To give recipes for the different kinds of pickle for the different kinds of pigs, fed in as many different manners is impossible; but one rule is a good one, but not often followed,—that is, as soon

as your pig is killed, hung up, and washed, cut off the hams, prepare the sides, and cover them with salt as soon as possible; let the hams hang for three or four days, or more if in winter. In about six weeks, I intend to try some experiments on the carcasses of five pigs, and in the spring will let you know the result. I may as well mention here, that during the Exhibition year of 1851, in consequence of my sawdust biscuits being in the Exhibition, I received a letter from the Hon. Sidney Herbert to know if it would feed pigs. At that time I had no opportunity of trying, but have since done so, and find that they nourish upon it; but the fat has a flavour of pine-wood. I should like to know if any of your readers have ever tried it, and what has been the result. It may not be a fact generally known, that the tongues of oxen differ greatly in curing, and I have found the cause to be, that when the animals have been driven some distance, or came from off the ship after a voyage, and was then killed, it requires great care to cure their tongues, and then, when boiled, if sweet, they will be stringy and hard, and the fat yellow.—G. W.

In answer to your correspondent, "G. L. C.," in last week's number, I enclose a recipe for making PERRY; but let me first premise, that the flavour entirely depends upon the kind of fruit. Three years since, this autumn, I devoted four days in visiting different farm-houses, in Gloucestershire, to see how they made Perry, and in every house I found the system vary.

I have not the memorandum by me with the names of the different kinds of Pears; but that is of little consequence, as I found the same fruit had a different name twenty miles apart.

Very little Perry is now made in comparison to what was made half-a-century since, as the fruit finds a more ready sale at market, and in most of the old farm-houses they only make a little for themselves, because it has been the custom to do so, for beer is now cheaper, and preferred.

TO MAKE PERRY.—Take a quantity of full-ripe, juicy Pears, without a bruise, the pips quite black; grind them, it is immaterial how, in a malt mill, if convenient, then press them in a regular screw press if you have it, if not, in a strong box full of small holes, covered inside with some hair cloth, or, for want of that, canvass; have a piece of wood which fits inside as the top of the box, fill the box with the ground pulp, place a weight on the top, or with a lever press it down until all the juice is extracted, which runs into a tub below. The residuum is good for pigs, or, when dried in an oven and broken up small, for poultry. Thus far, the results of all perry makers are the same; now for the difference. Some allow the juice thus extracted to remain twelve hours in the tub, others eighteen, others twenty-four, which difference, I believe, depends upon the fruit, in the same way as in the farms of Spain, Portugal, and France with the Grapes. After having remained in the tub sufficiently long to deposit its sediment, the juice should be racked off into a clean cask, by means of a funnel, in which there should be a small hair sieve to prevent any floating particles getting in. The cask should then be placed in a cool, clean cellar (as clean and as free from smells as a drawing-room), and at a temperature of about 60°. In addition to this cask, there should be another small one ready to fill up the ullage of the large one; the cask must be bunged-up, and a spile hole made, in which place a spile, or spiggot. This must be taken out, from time to time, to see if fermentation commences, and when it does, the juice must be racked off into another clean cask, and each time fermentation takes place to proceed in the same way, filling up the ullage from the small cask, which should, if possible, have been of the previous year's make; if the fermentation should continue too long, burn a match in the cask previous to racking, or a burnt oyster shell will do. The sediment each time may be strained through a flannel bag, and the liquor added to the cask. In about five months it may be bottled; but should it prove cloudy, clear it with a little isinglass dissolved in a little perry; or, should the colour be too dark, a quart of milk and a quarter-of-an-ounce of isinglass will correct it. Bottle, cork, tie, and cement the corks, lay them on their side, and in six weeks they are fit for use. For good bottling perry, add to it, when fit for bottling, for every hogshead of perry, four gallons of pale brandy at proof, and

not less than twenty pounds of lump-sugar boiled to a crack, or the same weight of barley-sugar; wire, and tie the corks, cover with tin foil, and in three months it is fit for use. Both the above should be buried in plenty of sand.

STILL PERRY.—To each gallon of Perry add one pound of barley-sugar, allow it to ferment, then cask it; if it wants to ferment again, rack it, and boil a small quantity, allow it to get cold, add it to it, with one gallon of pale brandy to every twenty gallons of perry, one-eighth-of-an-ounce of essence of almonds, one-sixteenth-of-an-ounce of essence of cloves, half-a-pound of common white tartar, fine it with isinglass, let it settle, and bottle for use. The older it is the better. If the colour is required brown, like brown sherry, add some burnt sugar; or of a red colour, like the French St. George, add to twenty gallons of perry, one pound of red tartar, one pound of extract of log-wood, twenty pounds of sugar, half-an-ounce of essence of ginger, one-and-a-half gallon of brandy. Let it remain twelve months in cask. As the colour of log-wood varies very much, the best plan is to try a small quantity at first.

Whilst on the subject of Pears, a very excellent marmalade may be made with Pears, to use in making tartlets. Boil six good-sized Pears to a pulp, weigh them, take half their weight of sugar, put it into a saucepan with a very little water, boil it, and skim it whilst boiling; when boiled to a crack, add the pulp of the Pears, give it a boil, and add about four drops of essence of cloves; when cold, use.—G. W.

LONDON MARKETS.—DECEMBER 3RD.

COVENT GARDEN.

The supply of most articles, both Home Grown and Foreign, is now ample for the demand: indeed, prices have a rather downward tendency, especially in *Potatoes*, *Cobbs*, and *Filberts*, the holders of the latter article being anxious to effect sales. *Hamburgh Grapes* are now done for this season; *Spanish* and *Portugal* scarce.

FRUIT.

Apples, kitchen, per bushel	2s. to 4s.
" dessert	4s. ,, 6s.
Pears	4s. ,, 8s.
Peaches, per doz....	5s. ,, 8s.
Nectarines, per doz....	—
Plums, per sieve	4s. ,, 8s.
Pine-apples, per lb....	4s. ,, 6s.
Grapes, per lb.....	1s. ,, 6s.
Foreign Melons, each	2s. ,, 4s.
Figs	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barecelona, per bushel	20s. ,, 22s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts	—

VEGETABLES.

Cabbages, per doz. ..	9d. to 1s.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	2s. ,, 4s.
Brocoli	1s. ,, 2s.
Savoy	—
Greens, per dozen bunches	2s. ,, 3s.
Spinach, per sieve....	1s. ,, 2s.
Beans	—
French Beans, per half sieve	—
Scarlet Runners ..	1s. 6d. ,, 3s.

Pears, per bushel	3s. ,, 5s.
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per ewt. ..	3s. ,, 6s.
Turnips, per bunch ..	2d. ,, 3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s. 6d.
" Cabbage....	6d. ,, 8d.
Endive, per score ..	1s. ,, 1s. 6d.
Celery, per bunch....	8d. ,, 1s.
Radishes, Turnip, per dozen bunches ..	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet	2d. ,, 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	—
Sea-kale, per punnet	—
Rhubarb, per bundle	—
Cucumbers, each	3d. ,, 5d.
Vegetable Marrow, per dozen	6d. ,, 1s.
Tomatoes, per punnet	1s. ,, 2s. 6d.
Mushrooms, per pottle	1s. 6d. ,, 2s.

HERBS.

Basil, per bunch	4d. to 6d.
Marjoram, per bunch	6d. ,, 9d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch ..	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch ..	2d. ,, 3d.
Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, NOV. 30.—The attendance this morning at market is limited. Since Monday there have been moderate arrivals. Wheat attracts limited attention, and the sales of Foreign this week are few. The English left over from Monday was all sold at that day's rates. Barley quiet. The dealers buy Oats with great caution, and prices are against the seller. All other Grain finds a quiet retail trade at a steady currency. Flour quite as dear.

WHEAT.

Kent and Essex, red,	
per qr.....	83s. to 85s.
Ditto, white	82s. „ 92s.
Norfolk and Suffolk..	78s. „ 80s.
Dantzic	92s. „ 96s.
Rostock	81s. „ 92s.
Odessa	73s. „ 76s.
American	92s. „ 96s.

BARLEY.

Malting	45s. to 49s.
Grinding and Distil-	
ling	41s. „ 43s.
Chevalier	45s. „ 49s.

OATS.

Scotch, feed	34s. to 36s.
English	26s. „ 27s.
Irish	30s. „ 32s.
Dutch Broo	29s. „ 30s.
Danish	30s. „ 32s.
Russian	26s. „ 29s.

BEANS.

Harrow	52s. to 56s.
Pigeon	54s. „ 56s.
Tiek.....	50s. „ 52s.

HOPS.

BOROUGH MARKET, FRIDAY, NOV. 30.—During the past week there has been a fair demand for choice and middling qualities, and colour samples fully maintain their value. The large proportion of brown and inferior samples on the market remain without much inquiry, and where sales are effected, a considerable decline from late prices is submitted to. Mid. and East Kents, 65s. 90s. to 112s.; Weald of Kents, 56s. 80s. to 90s.; Sussex Pockets, 50s. 70s. to 84s.

HAY AND STRAW.

Clover, 1st cut per		Rowan	80s. „ 90s.
load	110s. to 140s.	Straw, flail	30s. „ 36s.
Ditto, 2nd cut	90s. „ 130s.	Ditto, machine	28s. „ 30s.
Meadow Hay	90s. „ 130s.		

POTATO.

SOUTHWARK WATERSIDE.—NOV. 26.—The arrivals coastwise have been limited, but by rail unremitting; and as the great proportion of Regents have proved out of condition, the buyers have been reluctant to purchase, and the pressure on the market has, in consequence, been very great; as such goods cannot be stored with safety, they must be sold, and under great disadvantages. Orkney Reds and Cups, on the contrary, have arrived sound, and are in request at improved prices; they will, no doubt, take the lead until Regents reach this market in better condition. Kent and Essex Regents, 90s. to 100s.; ditto Shaws, 80s. to 0s.; York Regents, 100s. to 105s.; Lincolnshire Regents, 90s. to 95s.; Wisbeach and Cambridge Regents, 90s. to 95s.; Bedford Regents, 100s. to 0s.; ditto Shaws, 85s. to 0s.; Norfolk Regents, 90s. to 0s.; ditto Whites, 0s.; Scotch Regents (East Lothian), 80s. to 85s.; ditto (Red Mould), 90s. to 100s.; ditto (Perth and Fife), 75s. to 80s.; ditto (North Country), 75s.; Orkney Reds (East Lothian, nominal), 90s. to 95s.; ditto ditto (Red Mould, nominal), 100s.; Scotch Cups (Perth and Fife, nominal), 85s. to 90s.; ditto (North Country, nominal), 80s. to 0s.; Irish Kemps and Clusters, 80s. to 0s.; ditto White Rocks, 0s.; ditto common Whites, 0s. per ton.

MEAT.

Beef, inferior, per	Mutton, middling 3s. 10d. to 4s. 4d.
8 lbs. 3s. 4d. to 3s. 8d.	Do. prime 4s. 6d. to 4s. 10d.
Do. middling..... 3s. 10d. to 4s.	Veal 3s. 10d. to 4s. 10d.
Do. prime 4s. 2d. to 4s. 4d.	Pork, large..... 3s. 8d. to 4s.
Mutton, inferior 3s. 4d. to 3s. 8d.	Ditto, small.... 4s. 4d. to 5s. 4d.

POULTRY.

There has been little variation during the past week. The diminished supply of Partridges tell of the time of year, and the wildness of the birds.

Large Fowls..	5s. to 5s. 6d. each.	Teal	10d. to 1s. each.
Smaller do. .	3s. 6d. to 4s. „	Wild Duck	2s. 6d. „
Chicken	2s. to 2s. 6d. „	Woodcock	3s. to 3s. 3d. „
Geese	6s. to 7s. „	Snipe	1s. 3d. to 1s. 6d. „
Pheasants..	2s. 6d. to 3s. „	Pigeons	8d. to 9d. „
Partridges 2s. 3d. to 2s. 6d. „		Larks, per doz.	1s. „
Grouse	2s. to 2s. 6d. „	Rabbits ..	1s. 4d. to 1s. 5d. „
Hares.....	2s. 6d. to 3s. „	Wild do.	10d. to 1s. „

PROVISIONS.

BUTTER.—Cwt.

Dorset, fine	104s. to 108s.
Do. middling.....	90s. „ 96s.
Fresh, per doz. lbs.	12s. „ 13s.
Friesland	108s. „ 112s.
Kiel	94s. „ 98s.
Carlrow	102s. „ 106s.
Waterford	98s. „ 102s.
Cork.....	98s. „ 102s.
Limerick.....	100s. „ 102s.
Sligo	94s. „ 102s.

BACON.—Cwt.

Wiltshire, dried ..	80s. to 84s.
Waterford	74s. „ 76s.

CHEESE.—Cwt.

Cheshire, fine	74s. to 90s.
Gloucestershire, dble.	70s. „ 76s.
Ditto, single	60s. „ 74s.
Somerset.....	70s. „ 76s.
Wilt, loaf.....	68s. „ 78s.
Ditto, double.....	72s. „ 78s.
Ditto, thin.....	54s. „ 64s.
Ditto, pines	62s. „ —
Berkeley, thin	72s. „ 66s.

HAMS.—Cwt.

York, new	80s. to 90s.
Westmoreland	76s. „ 86s.
Irish.....	74s. „ 84s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11½d. the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Teds	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. „ 1s. 2d.
Ditto Teds and		Leicester fleeces....	1s. „ 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hog-		Combing skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia. 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

*** We request that no one will write to the departmental writers of THE COTTAGE GARDENER. It gives them unjustifiable trouble and expense. All communications should be addressed "To the Editor of The Cottage Gardener, 20, Paternoster Row, London."

FERNERY FOUNTAIN (Y. Y.).—A cistern elevated high above the ajutage, or pipe's mouth, whence the water issues, and communicating with it, is the fundamental requisite. The time a fountain will continue to play is regulated solely by the size of the supply cistern, and of the orifice of the ajutage. This orifice ought not to be more than one-fourth of the diameter of the pipe supplying it with water. The height to which the water is thrown depends upon the height of the supply cistern above the ajutage. They are of the easiest construction, and it is a simple matter of calculation in how long a time an orifice of a given diameter will allow the water to escape through it from a cistern of a given size, elevated a given number of feet above that orifice. We believe portable fountains may be purchased at the Oxford Street Bazaar, on the basement where birds are sold. Have you a few perfect fronds to spare to complete a herbarium of British Ferns?

FUMIGATING (A. B. C.). There is nothing novel in your proposed plan. It has been practised many times successfully.

"WANDERINGS AFTER THE SUITABLE."—We have had a letter sent to us for W. H., the writer of the article so designated. We will forward it to him if he will send us his present address.

PEAR AND PEACH TREES UNFRUITFUL (W. Howard).—As these are vigorous, and "make pretty good shoots," they do not require manure. The probability is they require root-pruning. If they have blossom-buds upon them leave them alone. Lime and soot will be a good dressing for your mossy wall.

AURICULAS, &c. (An Amateur Subscriber).—For obvious reasons, we never recommend individual tradesmen. Write to any florist that advertizes in THE COTTAGE GARDENER, and he will send you the price of Auriculas, or any other florists' flowers. We are not aware of a Florist's Pocket Book containing the information such as you find in Johnson's Garden Almanack; no doubt such a book would be useful. There are many London nurserymen that keep general assortments of hardy herbaceous plants (Dodecatheon's amongst them), such should advertize in our columns. We know a gentleman that has a small collection of Auriculas to dispose of, at a moderate price; send your address, and we will forward it to him. Thick leaves, such as you have sent to be named, should be put into a thin tin box, separate from the paper containing the request for their names. The leaves, when sent in the letter, are crushed at the post-office by stamping, and then give out their juice, which so stains the paper as often to obliterate the writing. It was so with the one you sent. As far as we can make it out in its crushed state, we think it is the *Velthimia viridifolia*, a large bulb, from the Cape of Good Hope. The other is, probably, the *Ficus repens*, or *F. stipulata*, an evergreen trailer, from China, useful for covering blank walls in greenhouses; otherwise, uninteresting.

NECK-RING OF ROUEN DUCKS (A Subscriber).—Rouen Ducks should be the exact copy of Wild Ducks, only larger. The drake should, therefore, have the white neck-ring, and the duck should not.

BREAST OF GROUSE AND PARTRIDGE COCHIN-CHINA COCK (Selim).—We believe it is accepted as a rule, that in pens of Grouse and Partridge Cochin fowls the cocks should have black breasts. All our best judges act on that. We fully admit the difficulty of breeding them, and there is just the same in every other class where perfection is sought; but the Rev. G. Hodson, Mr. Punchard, and others, have proved it may be done. Cochins are birds of feather, the standard is well understood, and it is not arbitrary if judges seek to encourage the best birds by awarding prizes to them. It would be so if any gentlemen, in the exercise of their office, withheld rewards because no pen was perfect. Their duty is to distinguish the best among those exhibited, and we have little hesitation in saying, they will always seek black-breasted cocks in these classes, in preference to those that are mottled. The chicken bred from the latter are prone to have a yellow tinge on their feathers.

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WEEKLY CALENDAR.

D M	D W	DECEMBER 11—17, 1855.	WEATHER NEAR LONDON IN 1853.					Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.							
11	TU	Grouse shooting ends.	30.057—29.989	45—30	S.W.	03	58 a 7	49 a 3	5 22	2	6 40	345	
12	W	Colymbetes fuliginosus.	30.190—29.967	52—42	S.W.	02	59	49	6 45	3	6 12	346	
13	TH	Opilus mollis.	30.017—29.945	55—49	S.W.	01	VIII	49	8 13	4	5 44	347	
14	F	Phosphuga atrata.	30.112—29.803	54—42	W.	09	1	49	9 43	5	5 15	348	
15	S	Greenfinches flock.	29.869—29.657	47—26	W.	00	2	49	11 9	6	4 46	349	
16	SUN	3 SUNDAY IN ADVENT.	29.939—29.752	45—33	N.W.	10	3	49	morn.	7	4 17	350	
17	M		29.464—29.002	39—29	N.	14	3	49	0 33	8	3 48	351	

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 46.2°, and 34.2°, respectively. The greatest heat, 61°, occurred on the 13th, in 1842; and the lowest cold, 7°, on the 16th, in 1853. During the period 113 days were fine, and on 83 rain fell.

A MEETING of the British Pomological Society was held on the 3rd inst., when the chair was occupied by Mr. Rivers.

The Rev. E. H. Kittoe exhibited some very fine specimens of *Marie Louise* Pears, grown against an east wall at Chadwell, near Grays. They were large, and of excellent flavour, perfectly sound, and had every appearance of keeping till a very late period.

Mr. Rivers produced specimens of a number of the new Belgian Pears, among which the most remarkable were *Marechal de la Cour*, a seedling of Van Mon's, and of excellent flavour; *Nouveau Poiteau*, large and handsome, but rather coarse in the flesh, though of good flavour; *Catinka*, melting and sugary; *Beurre de Launay*, flesh melting, brisk, sweet, and juicy; and several others which were of no particular merit. But the best of the whole collection was one of our own native varieties, raised by Williams, of Pitmaston, and called *Late Gansel's*. In appearance it is very much like the old *Gansel's Bergamot*, and, if possible, even richer in flavour; the flesh is quite melting and juicy, with a full and remarkably luscious flavour, and a fine aroma. The tree is a strong grower, with a timber-tree-like habit, very hardy, and a great bearer. Would that we had many such.

Mr. Lane, of Berkhamstead, brought several specimens of Pears, and also of seedling Apples. The Pears were *Doyenné Boussouch*, a new Belgian variety, which was found to be coarse-fleshed and without flavour; some excellent examples of that delicious variety, the *Seckle*, in good preservation for so late in the season; *Beurré Robin*, a variety with which we are unacquainted, but of very excellent quality; and *Beurré Suprême*, also a very richly-flavoured sort, highly deserving of cultivation. The seedling Apples were of little merit, except one which appeared to have been raised from *Dumelow's Seedling*, and which preserved, to a great extent, the character of that variety.

The following gentlemen were elected members:—

Rev. C. C. BEATY POWNALL, Milton Earnest, Bedfordshire.

Mr. RICHARD SMITH, Worcester.

It was agreed that there should be no Meeting in January; but that an Extraordinary Meeting shall be held on the first Monday in February.

POMPONE CHRYSANTHEMUMS.

(Continued from page 161.)

AFTER *Cedo nulli*, the next best white one for the open air, out of my collection, is *LA GITANA* (pronounced *Shitana*, and the Spanish name for Gipsy). *Gitana*, or *Gipsy*, is a light blush flower, which comes late out-of-doors, and only second rate. *La Sultane* is the next degree of white, and much about the same merit as the last.

BEAUTE TOULOUSAIN is nearly a French-white, a dwarf, free bloomer, and stands all weathers to the last.

LA FIANCÉE (The Bride) is a clear, small, pure white flower, which is the best we have for an edging, as it is one of the dwarfest. It is also a rigid upright grower; just the thing for an outside plant or row in a bed, but having *Argentum* in this style, it is not worth while growing *La Fiancée* in a pot. Let me remark, in passing, that having the *Dahlia* experience before us, we ought to be careful not to lose a good bedding Pomponé from the beginning, although it may not be worth a pot, or pot culture. Let us also keep the best of such kinds in every shade of colour. Had the like been done for the last five-and-twenty years with bedding Dahlias, I am quite certain we might now have thirty or forty kinds, just as good as *Zelinda*, without the smallest inconvenience to the florist. There are several other light kinds, which I pass over, till I have an opportunity to prove them under my own eye, from beginning to end.

As black is the strongest contrast to white, I shall take the dark-coloured ones next; of them, *DAPHNIS*, or *Daphne*, is the best; it is that kind of dark red called carmine; for a pot, or bed, or for cut-flowers, for dwarfness, and upright, rigid style of growth, and for enduring frost and all weathers, none is better than *Daphnis*—of the darks. If cuttings of it are put it on Midsummer-day, in a shaded place out-of-doors, but no covering of glass, or anything, the plants will make the best edging in the world to a bed of light shades of them. When I come to learn the bedding properties of all the best Pomponés, and I am master of the subject from actual experiments with my own fingers, I think I shall be able to point out such-and-such arrangements as will enable the prettiest flower-beds of them that ever were seen or thought of, and *THE COTTAGE GARDENER* is a capital book to keep my notes together.

ELISE MIELLEZ is the next best; it is darker and larger than *Daphne*, but there is not much difference in their heights, so that in a row you might plant them alternately.

LAIS, on the other hand, is one of the tallest of the race, and darker than the two last ones; it is of the *Anemone*-flowered section, but not with the bull's-eye; it is only fit for the centre of a bed, and for cut-flowers. It stands all weathers, and holds on a very long time in bloom, but how long I cannot say, as mine are still (December 5th) in their prime.

ATROPOS, a reddish-crimson, or rather purple, has the

bull's-eye, certainly, but it is a shade lighter than *Lais*, and not quite so tall, therefore, in a dark group, it would stand between *Lais* and *Elise Miellez*, with *Daphne* on the outside; but mind me, I do not say that such a group should ever be made; I name it only to show the relative "heights and colours," one of the principal foundations in arranging a flower-garden. As we have so many light and so few dark kinds, we cannot yet afford to give up *Lais* or *Atropos*.

The next shade is between violet and rosy-purple—a plum colour—the best of that colour, and one of the best pot plants we have is *REQUIQUE*. It was in the prize collections at the last meeting of the Horticultural Society. The name is that of a French clown, and should be pronounced *Rikúkee*, with a strong accent on the *a*. No one who likes them ought to be without *Requiqui* another year.

HELENE is next to it, which would be only a second-rate kind were it not for the colour, which is very scarce and peculiar.

We now come to the rosy tints; of these, *POULEDETTO* is the best of all my stock; but Mr. Salter, of the Versailles Nursery, Hammersmith, has several kinds of this tint, which may turn out better than my choice; still, having only spent but one day with Mr. Salter, and had to look over, examine, and compare some hundreds of plants and kinds, I must hold back my hasty opinion on his rose tints, and give only my own ripened judgment for this season. Yet, I must thus publicly express my obligation to Mr. Salter, whom I had never seen before, for allowing me to turn over or pull about his plants in any way I choose. He laid the first train for originating the race from the "*Chusan Daisy*," which, as a F.H.S., he was the first to introduce to Paris, and hence to the South of France florists, with whom the double ones appeared after the first or second batch. I should think Mr. Salter is the largest grower of all the tribe in Europe, and he leaves every one of them out-of-doors all the winter, without any protection, but then the plants were growing in the free soil all the season, and he agrees with me, that it is folly ever to put one of the Pompones in a pot till it is in full bloom, and fit for the bed, or the drawing-room.

I have many kind neighbours here, who have assisted my experiments materially, by allowing me to see how the plants would stand the greenhouse, the conservatory, the lobby and front hall, the flower-beds, and the vases, after they were lifted from the ground in full bloom. In every one of these experiments we were successful to a degree which, sometimes, astonished the experimenter himself. But to our rose tints.

PONDELETO is a very strong, stiff grower, and also a dwarf kind; comes in about the middle of their season, and improves with age, until, at last, it is really a nice thing. It was one of the prize flowers of 1854, in Regent Street; cuttings of it, in June, would make nice little plants, ten inches or a foot high, for ornamental stands and glasses in the drawing-room.

I had six plants there, five inches apart, in bloom, on the mantelpiece, in little stands, with no more capacity than a wine-glass, and with no drainage at the bottom, and you never saw such interesting pigmies in your life; but so full of bloom—the kind was *HENDERSONII*. Twelve cuttings were put in a 60-pot, about the middle of July, in nearly pure sand; the ball was afterwards turned out on a wall border entire, and in October, when they were in bloom, the ball had to be shaken to get the plants separated; and yet they flowered, as I have told, without drooping a leaf, and so would *Daphne*, *Pondeletto*, *Drine Drine*, *Autumnum*, and, indeed, all the dwarfer kinds, for all these, and many more, are not nearly so tall as *Hendersonii*.

PERLE DU PRADO is a lovely pot-flower of this tint, or a rosy-peach colour, which I saw with Mr. Salter, for

the first time; and *TROPHÉE* is the best rose-coloured kind I have ever seen. It was "let out" only last May, at 5s., by Mr. Salter.

The next tint would bring us nearly to crimson, or scarlet, and one called *BRILLIANT*, a famous flower, comes the nearest of them to that; as it is, it comes up to a first-rate flower, but I only saw it with Mr. Salter. I must here put off the rest of the fancy shades for another season, for want of more experience, and turn to the yellows, where the magic force of Pompones breaks in upon us like a new idea. Talk of yellow *Calceolarius* for flower-beds; why, they are as shadows to a real thing in the comparison! You might plant a bed of yellow Pompones as long as you could see, and never see a leaf in the bed the whole time they were in flower. For a bed of one tint, I think *DRINE DRINE* must carry the palm, all qualities considered; but *BARROL*, *LA VOGUE*, and *SACRAMENTO* come in strong opposition to it; and *SOLFATERRE*, though a thin flower, keeps a pure, delicate canary-yellow tint through all weathers; but when we come to plant a bed of yellows in shades and heights, each of them will fall into a separate line or circle, and not one of them, I think, would then do in place of another; but of that I am not quite certain. *Drine Drine* should be pronounced as if written *Dry'n Drean*, or very nearly so, with a strong accent on the *y*. This name has puzzled French and English alike. It is the name of a German national song, "a jolly song," and it should be written *Drin Drin*, instead of *Drine Drine*, as we have hitherto been doing. It has supplanted *Sacramento* at the show in Regent-street this season, and nothing could be finer than it has been with me out-of-doors to this very day, except, perhaps, *La Vogue* (The Fashion). This, also, is a most lovely bedding plant—no amount of rain, hail, or wind, nor seven degrees of frost hurt it in the least, nor hardly any of my stock, except *Hendersonii*, and two or three of the more delicate white kinds.

LA VOGUE is a pyramidal grower, branching from the bottom, and so flowering all the way up to the top; the flower is large, reddish-yellow, and brown tips to the last, out-of-doors; but at a short distance it looks one mass of reddish-yellow, while *Drin Drin* is as clear and soft, velvety-like, as the flower of an *Alamanda*. *BERROL* and *BERNARD* I only saw at Mr. Salter's.

FENELLA is a clear yellow, but of a different shade. It is a capital thing in a bed, and is very distinct from all the other yellows in the open air by its own peculiar shade of yellow. You might mistake several kinds of yellow, the one for the other, in a bed, but no one could mistake *Fenella* for any other Pompones. In-doors, however, it blackens, and is only a second-rate flower. It is the only yellow one which is fringed.

There is a large white kind, with fringed petals; a first-class flower, called *MARABOUT*, and if it will stand the weather, it will make the best white centre for a bed. *PLUME D'OR* (The Golden Feather) is a very fine, dwarf plant, with bright golden-yellow flowers, and fit for edgings, and *TOISON D'OR* (Golden Fleece) is the latest of all the Pompones; a very dwarf, stiff plant, which might very easily be had in perfection, in-doors, about the middle of January. I have perfect gems of it from cuttings struck last July, now full of blossom buds, which want more heat to open them; and my old plants came in but the other day, with hard eyes, and no great show; therefore, *Toison d'or* is not fit for beds in the face of so many yellows, but it is a valuable house-plant for its lateness.

In the next shade of brownish-yellow, *JONAS* is one of the best I have, but I fear my plant is not true; but *COLIBRE* is an exquisite out-of-doors, and very late; as the buds begin to open they are crimson. They open of a reddish-yellow, tipped with purple, but the yellow and purple change much lighter before the flower,

begins to fade; it is the most peculiar and changeable of all my sorts.

My alphabetical list of the best and second-best sorts is only waiting for two or three kinds to be proved.

D. BEATON.

STOKE NEWINGTON CHRYSANTHEMUM SOCIETY'S EXHIBITION was held on the 14th ult. The 1st Prize for six distinct varieties of Pompones, cultivated in eight-inch pots, and on single stems, was awarded to Mr. Wetherill, for La Sultana, La Gitani, Bob, Drine Drine, Riquiqui, Cedo Nulli. 2nd Prize, Mr. J. Edwards, La Vogue, Cedo Nulli, Drine Drine, La Gitani, Comte Arehille d'Ateher, Madame de Vetry. 3rd Prize, Mr. Serooby, Bob, Modèle, Crostignac, Bijou d'Horticulture, Helenc. Mr. James, the treasurer, was the only exhibitor of large-flowering plants. His specimens were Pilot, Christine, Chevalier, Dowager, Madame Bucharet, Annie Salter, Defiance. Cut flowers, of four hundred and seventy-four blooms were staged, in collections of six, twelve, and twenty-four. Mr. Oubridge was first, with Themis, Duke, Madame Gordereau, King, Aregida, Nonpareil, Pio Nono, Beauty, Lysias, Duke, Formosa, Dupont de l'Eure, Madame Audrey, Plutus, Hermione, Are en Ciel, Stafford, Virgil, Leon Laquay, Rose Mystica, Anaxa, Miss Kate, Defiance, and Two-coloured-incurved. The best flowers of the other winning collections were, Beauty, Lysias, Themis, Arigena, Nonpareil, Queen of England, Hermione, Madame Audrey, Du pont de l'Eure. In the class for twelve blooms. 1st Prize, Mr. Elliott, who had Anaxa, Themis, King, Beauty, Arigena, Madame Audrey, Dupont de l'Eure, Madame Gondcreau, Virgil, Formosa, Hermione, Rosa Mystica. The other stands contained fine specimens also of Gem, Plutus, Nonpareil, and Yellow Defiance.

TENDER PLANTS BLOOMING IN DECEMBER.

MANY and diversified have been the suggestions and demands for monthly lists of flowering plants that could be obtained by persons with limited means; and it is to oblige this section of our readers that I make a commencement, rather than from any hopes that such lists can be very interesting, or instructive generally. "A Lover of Flowers" tells us that "many are situated like himself, having a hothouse, greenhouse, and pit, and that such a list would be extremely useful;" but many do not possess these conveniences; and many who do, devote them to so many diversified purposes, and grow their plants in such different modes, some preferring a few fine specimens, and others great numbers of small flowering plants, that such lists must always be looked upon rather fitted for general application than for particular use. Another class of readers, while asking for monthly lists, also desire to have a short outline of the treatment required for the different plants. The demand seems so pressing, or otherwise I would have preferred waiting for a new year, or a new volume.

STOVE PLANTS.

ARDISIA CRENULATA.—The treatment of this has already been given. It will stand very well in a warm greenhouse. It is almost always in bloom, but the flowers are small and uninteresting. Its chief ornament consists in the red, holly-like berries, which it produces in great abundance, and keeps in succession almost constantly. Loam and peat will grow it well, and a closish growing atmosphere for a few months in summer, and a more airy and drier atmosphere towards autumn, will secure abundance of red berries for winter. Temperature from 48° to 60°.

BEGONIA FUCHSIODES.—This is one of the most charming for winter flowering. One-year old plants, cut back in spring, and grown in a close, warm atmosphere, and then hardened off by more air and light, will blow well. But to have moderately-sized plants in full bloom in winter, no mode is preferable to striking cuttings early, in heat, in March, and keeping them growing vigorously until September, when more air and less water will soon bring them into a flowering state. Peat and loam, with dried cow-dung, and a little manure-water. Many others bloom all the winter, if treated much in the same way as *parvifolia*, *nitida*, *manicata*, *obliqua*, *fragrans*, &c.

BIGNONIA VENUSTA.—In a warm, airy house, this frequently keeps on to the new year. No climber better deserves encouragement. It does little good, unless it be planted out in a good corner, and the head is trained along the rafters of a house. The particular treatment is pruning back every season, so that strongish young shoots may be produced.

EPIPHYLLUM TRUNCATUM, *E. violaceum*, and others.—These do best grafted on *Cactus speciosissimus*. Most other Cacti are best when nearly dry at this season; but this must not be attempted with this section, or the flowers would not expand well during the present and the preceding month. When done flowering, keep them growing slowly at first, and freely afterwards. In August, a dry, airy, sunny place, either in-doors or out-of-doors will suit, and but little water. House by the middle of September, and the plants should not be kept quite dry afterwards. Temperature, 48° to 60°.

ERANTHEMUM PULCHELLUM and *E. pulchellum verrucosum*,—cut down in spring; grown on in summer; and hardened in autumn. For small plants, cuttings inserted in a hotbed in March, grown on in a hotbed, and stopped several times before July, hardened off by more air and sun in August and September, will make nice little bushes with blue flowers through the winter months. Temperature, 50° to 60°. Peat and loam.

EUPHORBIA JACQUINIFLORA *alias* PRUNIFOLIA.—This is one of the brightest gems of the stove in winter; its bright, scarlet flowers being universally admired. It blooms best on plants from two years old and upwards. When done flowering, and rested for some time, giving but little water then; prune back the shoots in spring, so as to have merely a few buds at the base of each. It is important that the plant should have been resting and dryish previously, to prevent bleeding to excess. In a week or so afterwards, start the plant in a moist heat, and do everything to encourage the growth of the young shoots until August, when more air and full sunlight must be gradually given to ripen the wood and set the flower-buds. A close, cold pit will do well in summer. A long shoot, nearly covered with small, scarlet flowers, is a striking object. Peat and loam. Temperature in winter, from 48° to 60°; when growing in summer, 60° to 85° and 90°. Others, such as *E. punicea*, *splendens*, &c., may easily be made to blow freely in winter.

HIPPEASTRUM.—A great number of the endless varieties of the Amaryllis group bloom freely during this and the following months in a stove, and will stand very well in a greenhouse after they are in bloom. The treatment for this purpose is shortly this:—when done blooming, encourage the leaves by heat, manure-water, and shifting into fresh pots, if necessary; as soon as the least tinge of yellow appears on the foliage withhold water gradually, until it is altogether dispensed with; allow the bulbs full exposure to the sun in autumn, though the leaves be gone; house them in any place free from frost; temperature averaging 45° or more; give no water until the flower-buds show, then water, top dress with rich compost, and place in a moist heat; and keep the atmosphere drier as the flower opens. Those that

do not show flower must be grown in summer. According to the time that the bulb and foliage is ripened will the plant be inclined to bloom. Those belonging to the *H. aulicum* section should never be quite dried.

GESNERA ZEBRINA.—The treatment of this has often been given. For winter blooming, the tubers should be started in April and onwards, and grown slowly. Plants in bloom at this season do not do well for blooming in summer and early autumn. They always do best after being well ripened and well rested.

JUSTICIA CALYTRICHA, or *flavicomma*, *speciosa*, *carnea*, &c. The first of these is the most compact, and a beautiful yellow-flowering thing it is. *Carnea* will bloom several times in the year. The general treatment is either to strike cuttings early, and grow on, or to prune back two or three year-old plants when done flowering, or rather some time afterwards; to grow freely in summer, to harden off in autumn, and keep in from 48° to 55° in winter. If the atmosphere is not rather dry at this season the large spikes of *Carnea* will damp off.

PASSIFLOA.—A few of *alata*, *quadrangularis*, *Kermesena*, &c., may still be dangling from the rafters, but the best for this season is *racemosa princeps*, because the bunches of bloom, hanging something like bunches of grapes, look very well, though there is not sun to open them.

POINSETTIA PULCHERRIMA and *pulcherrima alba*.—The treatment of this magnificent thing has frequently been given. Cuttings in a hotbed, in spring, or two or three year-old plants. Set aside in an open pot, after blooming, and allowed to get dry, pruned in within a bud or two of the base of the shoots, about the end of March; encouraged to break and grow freely; no stopping of shoots after the 1st of June; exposed to sun and more air in September and part of August, and housed in the stove by October. The points of the shoots must not be hurt by any means, as there the large crimson floral leaves come. Loam and peat, and plenty of manure-water when growing and flowering.

GREENHOUSE PLANTS.

ANDERSONIA SPRENGELOIDES.—A pretty thing, nearly always in flower, requiring sandy peat to grow in.

AOACIA *armata*, *juniperina* and *taxifolia*, &c., will bloom in warm greenhouses if the plants were started early. Loam and a little peat.

BULBS, such as *Narcissus*, *Tulips*, *Hyacinths*, &c., if potted by the end of October, or the beginning of November, and assisted with a hotbed after the pots are full of roots, will be coming in by the end of the month. Small pots should be used for the purpose.

CAMELLIAS.—These started into growth as soon as they finished flowering in a hot-house, or otherwise, and hardened by exposure after the flower-buds were set, will now be coming in.

CHRYSANTHEMUMS.—These will be good for the first part of the month; treatment often given.

CORREA SPECIOSA, *C. pulchella*, and many hybrids, are valuable for winter and spring blooming. The first is, perhaps, the best, and does well grafted on *Correa alba*. The others are easily propagated by cuttings. Three-parts sandy-peat to one of fibry-loam. A close place in the greenhouse in the early months of summer, a cold pit with plenty of air July and August, and house before the end of September. An article was given on their culture.

CORONILLA GLAUCA, a fine old shrub, growing freely in fibry-loam, and producing myriads of yellow flowers all the winter, requiring nothing but a slight pruning in spring, growing either in a greenhouse or cold pit for a month or two, and then rusticating out-of-doors in summer, and housing in October.

CYTISUS of various sorts, and **GENISTAS**, require similar treatment, only more visitings from the syringe in

summer, to keep down Red Spider. Unless the greenhouse is warm, many will not bloom much until next month.

EPACRIS.—Almost every one of this family, especially all having a smack of the *impressa*, will be in bloom all the winter. The treatment has been frequently given. Prune back freely when done flowering; give a short rest afterwards; encourage growth with an average temperature of 60°. When good, long shoots are made, harden and consolidate them by exposure to sun and air, and house in good time in the beginning of October.

ERICA.—Winter-flowering ones, such as the various *Vestitas*, *Patersonii*, *coccinea*, *exurgens*, *pinnea*, with its varieties, *hispida*, *rupestris*, *gracilis*, &c., require similar treatment, only demanding more air when making their growth than the *Epacris*.

DIOSMA ERICOIDES.—Easily grown in peat and loam; flowers small, but the foliage very aromatic.

EUTAXIA MYRTIFOLIA.—Frequently in bloom in December, in a warm greenhouse. Grown in peat and loam; pruned back in spring; shoots encouraged to grow, then hardened by exposure, and housed in October.

FUCHSIA SERRATIFOLIA.—Fine plants of this are obtained by planting out-of-doors, in a rich border, at the end of May; lifting and re-potting in September; keeping in a shady place for a few weeks, and housing in October. If kept in pots, plants should be pruned in late in spring, and grown in a sunny place in summer. Almost all **BRUGMANSIAS** will bloom in winter when so treated.

HELIOTROPIMUM of different sorts will bloom freely all the winter, if treated to a temperature from 45° to 55°.

LESCHENAULTIA FORMOSA.—Of this the treatment was given last week. No damped or decayed flowers should be allowed to remain, or the plant will be injured. Fine, large specimens I would not allow to bloom at all for several months at this period.

GERANIUMS OF SORTS.—*Scarlets* struck in May, or cut back in June and July, and kept growing, will now bloom well in an average temperature of 48°. Many of the older Fancies, such as *Sidonia* and *Jenkinsonii*, will also be in bloom; and the various kinds of purple, lilac, and scarlet *Uniques*, wherever there is a temperature sufficiently high to open the blossoms. The *Uniques* are constant flowerers.

LOBELIA ERINUS MAXIMA, and all that tribe of small flowering plants, will now bloom freely in small pots. Young plants struck in May and June do best. They make fine edgings for vases in greenhouses at this season.

LINUM MONOGYNUM.—Pruned back in spring, grown in peat and loam, and well exposed in autumn. The young shoots will now be covered with buds and yellow flowers.

MAURANDYA BARCLAYANA, and other varieties.—This, raised from cuttings in spring, and planted against a pillar in summer, or supplied with a trellis or branches of a tree, in a pot, I have had in fine condition during the winter months.

MYOPELUM PARVIFOLIUM, *M. ellipticum*, &c.—Interesting, though not very showy; simple culture, in peat and loam.

MIGNONETTE.—Sown at the end of July and the beginning of August.

PRIMULA SINENSIS.—Sown in spring in a little heat, potted off, kept in a shady place in summer, exposed more to sun in autumn, and housed by the 1st of October. *Double Chinese Primrose*, white and red. Divide and strike the plants in heat, in spring; grow them on in a warm, shady place in summer; expose to more sun and air in autumn; and keep them in the warmest end of the greenhouse in winter. No flowers should be allowed in summer. I have never done much good with

the red. Some of my friends have never succeeded with the white. A great gardener, whose place has been described in these pages, contends that the white and the red are *never* found good in the same place, and adduced many instances. This seems strange. What say our subscribers and correspondents in general? Would some be good enough to beat up their memory and observation. I can recollect seeing both at one place; but I really do not recollect of seeing both in first-rate order. One of my friends says, "Bother the double red;" and another says, "Hang the white, it gets over me." So there may be something more than a whim in it.

PASSIFLORA CÆRULEA, *P. cærulea racemosa*, Colvilli, and others, will be hanging from the rafters, if not dressed and pruned back.

SALVIA SPLENDENS, *S. fulgens*, *coccinea*, &c.—These require to be struck late in spring; grown on in summer; hardened off in autumn; and housed by the middle of October. Fine plants, with little trouble, will be secured by planting out in June; cutting the roots gradually in August, and repotting in September.

STATICE.—Several species of these are real beauties in a greenhouse in winter. An article was given on their culture some time ago. For *these* I should have no objection to use *soda* for cleaning the pots in which they are to grow; but for many things I should be afraid to use it for cleaning pots, though recommended by an able coadjutor, Mr. Beaton.

VIOLETS.—*Napolitans*, *Trec*, *Double Russian*, &c., are best divided into small pieces in spring, planted out on a rich border, kept well stirred and free from runners all the summer, and potted or planted in a bed in September. The tree seems to flourish in the lowest temperature.

WITSENIA CORYMBOSA and *W. maura*.—In a warm greenhouse these bloom in the midst of the winter. Treatment, a good deal the same as *Statice*, requiring sandy-peat and a little fibry-loam; a corner in the greenhouse, where the air does not come right upon it, would suit it best in winter, and a cold pit in summer.

In this hurried list, I perceive that, among others, I have omitted *Daphnes*, *Habrothamnus elegans*, *Trec* or *Perpetual Carnations*, *Cinerarias*, *Cyclamens*, and *Oxalis*; such as *O. marginata*, *sanguinea*, *tubiflora*, *tricolor*, and *variabilis*, the culture of most of which has been given in full.

R. FISH.

PAULOWNIA IMPERIALIS.—In THE COTTAGE GARDENER for November 13, page 109, it is mentioned that this fine plant did not flower at the Duke of Devonshire's villa at Chiswick, being cut off by the autumn frosts, but that it was known to blossom admirably at Lisbon. The writer of this saw a large specimen in full flower in a garden in the *Promenade des Anglais* at Nice, close by the sea, in April last, and a splendid object it was, with its numerous spikes of pale blue or lilac blossoms.—E. COPLAND, *Chelmsford*.

NEW OR GOOD BEDDING PLANTS.

(Continued from page 128.)

DAHLIAS.

A QUESTION may be asked, "What are the properties required in a Dahlia for bedding purposes?" The answer is, dwarf habit, abundance of bloom, and a rich self-colour, with double flowers. All these properties are found in the variety known by the name of ZELINDA. This variety has been spoken of in the highest terms, both by myself, Mr. Fish, and Mr. Beaton, and wherever it has been grown has given great satisfaction.

For a large bed, or one row, in the ribbon style, there is no plant surpasses it. Several years ago, I saw, in various places in Shropshire, this Dahlia planted out in beds, covered with bloom, and so conspicuous that it could be seen in full splendour at a considerable distance. It is true, it does not produce a flower fit for exhibition in a stand, but that does not detract from its merits as a bedding-out plant. I hope, now that it is grown so largely at the Crystal Palace, that cultivators of bedding-out plants will be induced to grow it more freely than they have done hitherto. I can assure them it will give satisfaction, providing it is planted in poor soil, not too light.

It is seldom exceeding a foot or fifteen inches high; flowers a deep purple, very double, standing up just above the foliage, and produced most abundantly from August till the frost destroys it. The price is now very moderate—good, strong plants may be had for six shillings the dozen. Each plant requires a foot square to grow in, so that a large bed will not require such a very great number of plants to fill it. No Dahlia propagates more readily, or produces more shoots from one ground root. I have propagated, by cuttings from one strong root, as many as two dozen plants early in the season.

DAHLIA BIJOU.—I have to inform the admirers of the Dahlia *Zelinda*, that there is another variety, with all its good properties for bedding-out, with this difference, that the flowers are of a bright scarlet colour! This has been long a desideratum. I grew it this season, and found it a really useful plant. The stock of it at the Victoria nursery is but small, but I trust sufficient to supply any that may feel inclined to order it. I have named it *Bijou*, and a truly little gem it is; it flowered with me when no more than nine inches high, and produced many fine double flowers of a better form than *Zelinda*. The average height is about the same as that favourite variety; if any difference, I think it is more dwarf. I have no doubt, many florists, in the habit of raising seedling Dahlias, have thrown away many a dwarf variety that would have been highly useful for bedding-out. We want, yet, a dwarf white, and a dwarf yellow. Should any raiser have a seedling dwarf, with a tolerable good flower of either of these colours, he should take care of it, and increase it. I will warrant it will repay him equally as well as if it had all the points required by the most fastidious florist.

THE PETUNIA.

This class of flowers has, hitherto, or till very lately, succeeded very moderately as bedding-out plants, and for this reason; just when a bed of them was come into full flower, several plants die off just where the stems of the plants end and the roots begin; then deaths take place, after a long drought succeeded by a wet season.

The best variety, previous to this year, able to resist this fatality, was our friend Mr. Beaton's SHRUBLAND ROSE, an old favourite variety. The following are also excellent, and have stood the vicissitudes of the weather this season well.

FAVOURITE.—A very dark rose-colour, with white centre, good, stout petals, and a free bloomer, and very hardy. Decidedly a hit as a bedding-out variety.

GEM.—I saw, this summer, two or three beds of this Petunia in the pleasure-grounds at Kew, and exceedingly handsome and effective they were. I think Mr. Beaton mentions them in his report of the flower gardening at Kew. Colour dark rose, free flowered, and very hardy.

MONTREAL PURPLE.—This is an excellent variety for bedding. Though the flowers are large, they are stout also, and keep their colour (which is a dark, rich purple) nearly to the last. Every grower of Petunias should procure this for one of his stock plants for bedding-out.

PRINCE ALBERT.—A distinct variety from the preceding; distinct in colour, for it is a crimson-purple, and has a small recurved petal in the centre of each flower. It is a most abundant bloomer, good form and substance. Though so good, it is not generally known at a distance from London, but I can safely say is worthy of general cultivation.

SHRUBLAND WHITE.—The true species, *Petunia nyctaginiflora* has white flowers, and produces them true from seeds, but they have generally a greenish cast with them, and produce an immense quantity of foliage. The *Shrubland* variety, on the contrary, is pure white, an abundant flowerer, and has small foliage, yet is equally, if not more, hardy, and propagates so freely from cuttings, that it may be had in great numbers from a small stock of plants carried safely through the winter.

T. APPLEBY.

(To be continued.)

SALE AT THE SURREY ZOOLOGICAL GARDENS.—On Tuesday, November 27, the entire zoological collection of the Surrey Gardens was disposed of by Mr. Stevens, preparatory to alterations necessary in consequence of Mons. Julien becoming *the* Lion of the place. It may possibly interest some of our readers to know the expense of forming a Zoological as compared with that of a Horticultural Garden; and we therefore quote a few of the prices. The elephant realised 320 guineas; a giraffe, 250 guineas; pair of camels, 110 guineas; a lion, 200 guineas; lioness, 120 guineas; a tigress, 79 guineas; a male ostrich, £27; a pair of emus, £19 10; pair of porcupines, £8 15; a single pelican, £18 10; 5 boas averaged £4 each; Gold Pheasants, about £3 per pair; and Silver, about £2 10. Many of the lots sold at very low prices, partly in consequence of the season, and partly from the forced sale. The elephant was purchased by Mr. Batty, of equestrian notoriety.

WOODS AND FORESTS.

THE NURSERY DEPARTMENT.

EVERY good forester will, if possible, have a piece of ground set apart for a nursery. The usefulness of such a plot is, undoubtedly, great, so much so as greatly to overbalance the expense. Many owners of large estates have found a nursery for forest trees indispensable. One of the best I know belongs to the Duke of Norfolk, at Norwood, near Sheffield, in Yorkshire. The Duke has large tracts of moorland, and every year plants many acres. It was found, when trees were had from a sale nursery, that the trees were so nursed, by being sheltered, and grown thick, that many of them perished on being planted out on a bleak, barren moor; hence, the forester thought it would be advisable to purchase small plants of a sale nurseryman, fence in a piece of ground, bring it into cultivation, and plant the young trees (two or three years old) in it thinly, and thus insure trees for his new plantations of stout, robust habit, well rooted, which of course, were found to do much better. Another advantage was that of not taking up too many trees at once. If a certain number of acres were set apart to be planted, and no nursery near the plot, the trees were ordered, as many as were needed, from a nursery, they were all taken up, bundled, and sent off, perhaps, a considerable distance. The roots, as a matter of course, got very dry; the trees arrived, and were laid in by the heels, and then planted as convenience and the weather allowed. The consequence might be easily imagined. One-third, or nearly so, died, and the rest had to struggle hard for life for two or three years before they made any growth. Hence, the owner

was dissatisfied, the forester and nurseryman blamed, and much time and loss incurred. Besides that, in order to secure a crop, at least double the quantity of trees were required. All this loss and disappointment might have been avoided by doing as the above-named Duke's forester did, that is, building a wall round a plot of ground, say four or six acres, in a part of the ground intended to be planted, having it well dug and cleaned, and the trees planted in it in nursery rows, not too thick, and kept clean till they were fit to plant out.

There may be many persons, owners of large tracts of waste lands, that would like to follow such a praiseworthy example. For their benefit and direction I am now writing. My subject divides itself into the following heads. 1st, The situation of the ground. 2nd, The preparing the ground. 3rd, Procuring and planting the trees; and 4th, Their after management, till finally fit for planting out to form the intended forest.

Private owners of such tracts will find many great advantages in adopting this plan, but more especially the great national forests would be benefited thereby. I do not know whether any of the Deputy Surveyors of the royal forests have a nursery so managed, for such a purpose; but this I do know, that if they do not have such a training nursery they ought to lose no time in establishing one.

1st, *The proper situation of the Nursery*—Supposing a clever intelligent man was engaged to cover a certain tract of country with a forest, and that district was a wild, bleak waste, he would immediately take a survey of it, and choose a small plot for a training nursery; the situation should be neither too much sheltered, nor too much exposed; that is, he would not choose it in a warm valley, nor adopt the spot on the top of a mountain. Extremes, even in the choice of the site for a nursery, are dangerous. Choose, then, the happy medium between the two extremes. The aspect is of little consequence, though a sloping to the west would be most advisable; the north is too cold, the south is too hot, and the east has the disadvantage of being exposed to the early rays of the morning sun, which are injurious to the young shoots of trees after a frosty night, early in spring, or late in autumn. In a few words, then, choose the site moderately elevated, and gently sloping to the west.

The soil is also of little consequence, so that it is not all clay, all sand, or all gravel. Young trees grow fast enough in very moderate soil.

2nd, *Preparing the Soil.*—The first thing requisite is to have the nursery well drained. Generally, moorland is stony; hence, in digging the drains plenty of stones will be dug out to place upon the drain-tiles. I always advise drain-tiles to be used in all draining operations. Any other material soon becomes choked up.

While the draining is being done the fence may be proceeded with. I consider it absolutely necessary that the nursery should have a good fence. Close paling, at least three feet high, will answer well for several years; but a wall of stone or brick is the best, and cheapest in the end. The entrance gate, too, should be a close one. The great object of this fence and close gate is to keep out hares and rabbits, both very injurious to young forest trees. After the fence and the drains are complete, then proceed to put the ground in order. Roads and walks, at convenient distances, should be set out. The soil, if any, should be thrown out on the quarters, and all stones that may be dug out of the ground will be useful to form the walls. Dig or trench the ground over as deep as possible, and finish the operation early in autumn. It is then ready for planting,—the directions for which I must reserve for the next opportunity.

T. APPLEBY.

(To be continued.)

NOTES FROM PARIS.

M. COURTURIER, fruit-dealer on the Boulevards des Italiens, is at present exhibiting a large and really beautiful centre-piece, composed chiefly of choice fruits and twigs of ornamental evergreens. The "piece" has the general form of a basket of flowers, such as we frequently see in paintings, that is to say, open, and spreading all round, the twigs of holly, boxwood, and such similar shrubs as have the run at this season, are tastefully distributed, so that the various hues and forms are evenly balanced. Then the whole is somewhat freely interspersed with Apples, Pears, Figs, Pomegranates, and Grapes. The Grapes, of course, are suspended from the sides of the baskets, and very beautiful fruit they are; but the other sorts of fruit are held at the general surface of what may be called the *bouquet*, by a new process just introduced, as it would appear, by M. Courturier. The process, I may venture to say, is such as any person can easily imitate. The fruit are simply suspended, or rather *stuck*, on wires, projecting outwards regularly all round, a finely-grown *British Queen* Pine-apple being stuck on the top. This arrangement is singularly effective, and especially suited for Christmas parties and marriage feasts. There is almost a total absence of flowers; and, I think, this is a point of some importance in any device of the kind where the object is to show the fruit to the greatest advantage. It will not be necessary for me to enter minutely into the other details of construction; for, no doubt, those who feel inclined to make up a *fruit bouquet*, if I may be allowed the expression, for the coming season of rejoicing, will require no more than the hint now given.

I may add, in the same way, that one of the latest novelties in saloon decorations is covering the shade of lamps with flowers, either in circles or otherwise. The flowers used in this way are, it is true, only artificial, at least, so far as I have seen; but that is no reason why natural ones should not also be employed. It has long been the fashion here to have the flowers painted on the shades; but the artificial flowers, neatly arranged all round, are much more effective, and there can be no doubt that both these forms of ornamenting lamp-shades must give place to real Camellias, Roses, and Pansies, especially on "grand occasions." But it is not enough to have the flowers *on* the shade; graceful, slender twigs may also be made to hang from the margin, and some of the more ornamental grasses may rise at the top, so as to form an irregular circle round the grass. I may also add, that the shade, in every case, should be made large and strong, being, in fact, more a framework than a shade, such as is commonly seen. But I do not see why we should confine our labours to the mere decoration of the shade; I would go a little further, and have a bank of flowers and evergreens on which to place the lamp, or even to imbed it, so as to cover the under part; and thus, while ornamenting it, adding lustre by throwing the light over a sloping carpet of rich, or, at least, fresh, colours. One of the most beautiful and effective designs I have seen in this way, consists of a statue representing a child, of the Cupid family, bearing a basket of real flowers on his head, and from the centre of the flowers a large campanulate blossom, in crystal, forms the protecting glass of the light. The arrangement of the flowers is natural and easy, some of the scandent sort falling gracefully from the sides of the basket, as if partially intended to veil the faithful delineation of Nature underneath.

The Christmas festivities are at hand, and on such occasions people try to make something of a display. Now, a pomological bouquet, and a floricultural lamp (where a lamp is used), are just the sort of things which one can relish and admire, and of which the preparation may be most fairly undertaken by ladies. But neither the lamp nor the bouquet is suitable for a dining-table, such, at least, as dining-tables generally are, where there is scarcely room for the more legitimate objects, and many a happy circle of friends sit round the same table from the beginning to the end. In this case, it would be advisable to use a light during dinner, and, after the removal of the cloth, to make a little ceremony of bringing in the lamp and the bouquet, the one borne by the young ladies, and the other by the young gentlemen; and if it were wanted to impart an additional interest to this part of the feast, the procession might walk

slowly round the room once or twice, singing the National Anthem, all the rest of the company standing up. But I merely venture to throw out the hint, and shall leave to others the task of carrying out the details.

While thus noticing the decoration of the festive board, I am reminded, by a note lying before me, that this is a fruitful subject, and that I must continue it a little further, in order to notice the *fruits glacés* of the French confectioners, who really show wonderful skill and taste in the preparation of a dessert. The *fruits glacés* are certain small sorts of fruit, prepared in dissolved sugar (boiled, I suppose), which, besides sweetening the whole body of the fruit, forms a firm coating over it so as to preserve it for a considerable length of time. The following are the sorts usually preserved in this way:—*Chinois vert* (green Chinese), a small variety of Orange, of which there is here a great consumption, for it is also preserved in liqueurs. Prepared in sugar, it sells at about two francs six sous a pound (nearly 2s.). *Noix de Perigord, verts* (green Walnuts), two francs four sous a pound. *Noix de Perigord, blonds* (ripe Walnuts without the shell), two francs four sous. *Poires Bousselée*, a small variety of Pear, like the Seckel, without the skin, two francs four sous. *Amandes verts* (green Almonds), two francs four sous. *Cerises*, a small variety of Cherry, two francs four sous. *Prunes mirabelles*, a pretty yellow Plum, in great plenty during the summer and autumn; it is but little larger than a marble; two francs four sous. *Prunes Reine Claude* (Reine Claude Plums), a variety in general estimation for dessert, either preserved or plain, two francs four sous. *Abricots d'Auvergne*. All these fruits are preserved entire; but the last is also sometimes cut into thin slices; two francs four sous a pound. Some varieties of Apples are also prepared in this manner. I have even seen Melons of six and eight inches in diameter; and passing directly to the vegetable department, we find the stalks of *Angelica* commoner than anything else. Fancy boxes, containing a mixture of all the varieties, may be had at prices varying between one and ten francs. Of plain fruits, the principal are the *Prunes Impériales d'Agen*, one franc four sous a pound; *Smyrna Figs*, one franc six sous; *Figues de Naples*, a small, round sort, six sous (3d.); *Figues de Marseilles*, not quite so large as the Smyrna variety, but equal in quality, selling at one franc four sous a pound; *Prunes d'Agen*, one franc; *Almande la Princesse*, one franc; *Dates muscades*, one franc four sous; *Pistoles d'Afrique*, one franc six sous; *Pomegranates*, from six to twelve sous a piece; the larger sorts, measuring about five inches in diameter, and in good condition, are from sixteen to twenty sous a piece (8d. to 10d.).

The weather has been really dismal for some time, and now we have had one or two sharp touches of frost, with rather a cutting north wind, which has, however, dispelled the fogs, and given us sunlight and moonlight again, together with the inestimable comfort of dry roads. But, on the whole, everything begins to look like winter, though a good many of the trees are still furnished with leaves, such as they are.

Flowers, in the open ground or borders, are now almost out of the question; still, autumn Roses and Chrysanthemums hold on wonderfully well in the more sheltered situations. There is, however, a good supply of flowers and ornamental shrubs in the markets and shops, as Roses, Violets, Heaths, Primulas, Chrysanthemums, Verbenas, Cacti, Everlastings, Camellias, Van Thol Tulips, Cinerarias, Oranges in fruit, Myrtles, Magnolias, Aucubas, and Lilac, the last almost white with forcing. A few Acacias are also to be seen here and there; but the pretty winter flowering shrub, *Viburnum tinus*, is not very common, and Rhododendrons are but scarce. Indeed, with the exception of some few tiny Azaleas, American plants, as we understand them, are by no means plentiful here at any time. There were only a few straggling bushes in the Horticultural Exhibition; though it is but fair to observe, that among the house-plants were one or two good varieties of Rhododendron. The most common shrub for giving effect on a large scale here is the Lilac, which, however, does not last long in flower.

The only novelty to be noticed in respect to *bouquets* is a branch of an Orange-tree, with one or two oranges in the centre, surrounded by a broad line of Neapolitan Violets, the orange, or oranges, are slightly raised. *Magnolia*

grandiflora and *Cereus speciosissimus* are also effectually used as central flowers.

Immediately after the distribution of the rewards at the Palais de l'Industrie, placards were posted up, in which, among other items relating to the continuation of the Exhibition, it was announced that the "Garden" would be open as hitherto till the end of the month. What the Commissioners meant by the "Garden," I am at a loss to understand; for, besides that of the Horticultural Society, nothing else in the vicinity was worthy of the name, and nothing else was open as an exhibition. Now, at the very time in question this garden was completely broken up: all the plants had been taken away, and, with the exception of the aquarium, the various houses and tents had been taken down. The clearing away has been continued; it is, therefore, probable that the paragraph was inserted by mistake. There was, to be sure, a small plot of ground at the back of the principal building, and which, in the absence of other things, was tastefully filled with garden ornaments and Coniferæ; but this was rather an agreeable resting-place than a garden.

La Presse, and other journals, have just announced the sudden death of Count Molé, whose name has long been associated with science, and the progress of agriculture in particular.

The marked distinction bestowed on McCormack's reaping machine by the Jury of the Exhibition has, of course, given great satisfaction to the Americans here; but the paragraph inserted in the official announcement, that this machine "is the model on which all the others are constructed" is rather bold. It would be curious to know by what process the Jury arrived at this conclusion, stated with so much authority.—P. F. KEIR.

HORTICULTURAL SOCIETY'S GROUNDS.

THE idea thrown out by a correspondent is certainly quite original, but there is a great deal of *bad* taste about it. Imagine a deputation waiting upon the noble proprietor, for the purpose of informing him that the Horticultural Society's Exhibitions have died an *unnatural* death. Consequently, the grounds are of no further use to the Society, imploring him to allow the aforesaid grounds to be turned into a "cemetery," and concluding with the request, that the benevolent proprietor himself would oblige them by marking out the spot for his *own* interment! There is one step from the sublime to the ridiculous, and in this case the adage is verified.

Your correspondent goes on to say, "I differ from you as regards one *individual*; the whole horticultural world is indebted to him." Unquestionably it is, for a vast amount of scientific knowledge. But is the horticultural world indebted to him for the dismemberment of one of the noblest institutions in the kingdom? His having held the chief management of affairs for a period of twenty-five years, is no argument in favour of his continuance in office now; in fact, recent disclosures has proved quite the contrary. The state of the finances alone have betrayed a want of foresight and judgment amounting almost to recklessness, and, unfortunately for your correspondent, mere assertion of opinion is not proof of facts. It should be remembered, the individual in question has been the monthpiece of most of the scientific gardeners of the day, and in possession of the results of their experience in horticulture; is it, therefore, too much to expect courtesy in return? Assuredly not.

As for many of us requiring a "touch up" occasionally, I admit it is the case; but there are a fitting time and place for it, and the observation addressed to a certain nobleman's gardener was rude, if not insulting. I know of many similar instances of uncourteous behaviour towards exhibitors, which is much to be lamented, since the success of the Society depends upon the encouragement given to gentlemen's gardeners.—J. E. T. H.

ORCHARD HOUSES.

MR. RIVERS, at page 92, takes up the gauntlet, buckles on his armour, and appears as apparently secure under its protection as if hammered by Scott's "Henry the Smith." Now, though I have not the least idea that I shall be able to make him tremble in his case, not having the power a Napoleon had over the inventor of the armour for his pet Guards, when so self-confident of its ball-proof qualities, he ordered him to stand up, and undergo the first trial; still, I hope to show, before I have done with the subject, that Mr. Rivers's structures, though useful, are not always in place. Even the useful Nile was a greater benefactor to the human race than it is now, when kept by its ancient great rulers under more stringent subjection. But I think I hear Mr. Rivers calling out, I am a hard matter-of-fact man, and I must now meet him with a similar material. Let us see how he went to work to create and produce what he calls his Orchard-houses to protect his pets.

His first Orchard-house was, I have no doubt, suggested by the hedges which, in his father's time, were used as a protection for plants, as we find his first step was to cover a space betwixt two hedges with glass, which I will call O. No. 1, in which he placed Pear-trees, &c., in pots, which, by-the-by, he had seen in France. As it was a new affair for him, it could hardly be expected Mr. Rivers would arrive at perfection at once, so, by-and-by, when attending to the wants of his favourites, he finds that he has begun at the top in place of the foundation; that his feet are in cold water, and his head in hot. He is convinced that this will not do, yet no remedy suggests itself. However, being a great traveller; we shall suppose him so journeying either in a neighbouring county celebrated for calves, or elsewhere, it matters not, for the benefit of mankind. Fortunately, he is shown one of the receptacles for the above useful animals, and being naturally of a bright turn of mind, it suggests at once—"This is what I want. Dear me! I have only to substitute my glass roof for the thatch; for even to the ailing I cannot see how it can be improved." This is Mr. Rivers's No. 2 Orchard-house. Had he travelled a little further, he would have found the old farmers even in possession of the same system of airing practised in the Royal Gardens at Frogmore. Mr. Rivers, perhaps, believed that he would have the whole horticultural world adopting his views, and that he should even get farmers to drive out their cows, cover their sheds with glass, and substitute his dear pets. How far John Bull has agreed in this progressive direction, I am unable to determine; but this I do know, Mr. Rivers has got many of the supporters of the Church to join him, as nothing in gardening goes down with many of them so well as the Orchard-houses. As an instance, one of my friends erected one this season, purchased trees, which, I believe, he expected would produce fruit in time for his nuptials, having, at the same time, his bride looming in the distance, and, like more of us, believing beforehand that Peaches would be a greater treat if produced by his own fostering care. His gardener, therefore, hardly dared look at them. I saw these trees a week or two before the expected event, growing extremely luxuriantly, without a fruit on them, and having three to four inches of manure heaped on the top of the pots, and, I expect, watered three or four times weekly with liquid-manure, and, like the most of amateurs I have conversed with on the subject, in the full belief that they should be stopped every two or three inches; the consequence is, he has bushes with fifty small shoots in place of nice trees with a dozen. However, perseverance may enable him to get fruit in time for his children. What interest his bride takes with his pet trees in such an atmosphere I have yet to learn. Be it remembered, I told you our friend began at the top, and as he has now got to No. 3, and only substitutes glass and bricks for boards, confirms my assertion.

Now, what is this No. 3? New? "No, no." I could show you one within a little distance of Mr. Rivers's of many years standing. What is No. 4 to be? Why, glass to be sure. This, of course, will be new. No such thing; they have been in existence quite as long as No. 3. But I am almost afraid to tell the ladies how long it is since I walked in a house of this description—not in paths or alleys too narrow for a modern dressed lady to get through, but

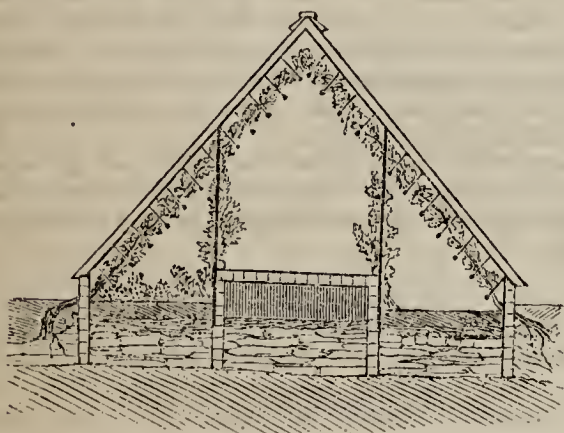
through a grove of beautiful standard Peach-trees, &c., where there was room to lend an arm to the invalid—room for the lovers, and even the wife and husband, to walk abreast.

Now for the interior. Mr. Rivers states nothing can equal his system for beauty of design, systematic arrangement, variety and scope for interesting objects; but let him speak for himself. He says—"Cultivating Peaches and Nectarines for pleasure in any other way than in Orchard-houses, is all leather and prunella, and there is an end of it." *End, indeed*; I think I hear even an English echo, whispering, pooh! pooh!

You have cheek-mated yourself, Mr. Rivers; but let us give you fair play, and dissect and ascertain what constitutes this *non-such*. Why one hundred trees in pots arranged as if for drill; six months out of the twelve, without leaves, and not much more than during three months interesting; giving no shade, which is so desirable in summer, and anything but agreeable, with the smells of liquid-manure, &c. A pretty place for a lady to promenade in. A promenade, indeed! What a name for a lane barely two feet wide. Why, it is a fit companion for Major's Willows kissing the stream, in the Queen's Park, Manchester, *alias*, a two feet dry ditch. (A fact.) So much for the delightful.

Now, for pounds, shillings, and pence, allowing you to have gathered 250 dozen of Peaches, seven to nine inches in circumference, in which I expect you include Nectarines, &c. Let us try them by the Covent Garden standard. Why, such puny things would not average two shillings per dozen—£25. Will this pay? Have the goodness to let us stay-at-homes have a fair statement of the returns for fruit, also the value of the trees that have been required to keep this show-house up, say, for this five or seven years past. This is the hard matter-of-fact we want.

Now, for the other side of the question; and to make my explanations more plain, I will enclose you a few sketches. Suppose we begin with No. 1, which is twenty feet in width,

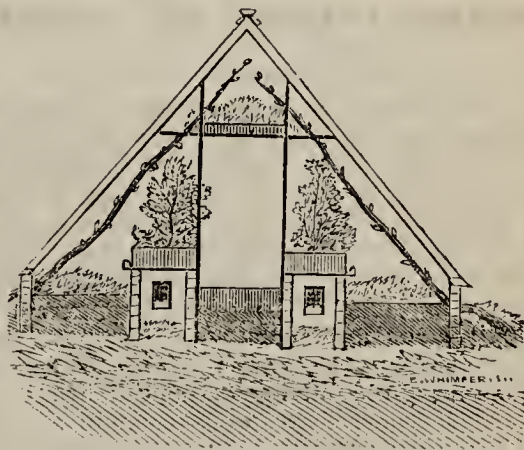


twelve in height, 100 feet, or 1,000 in length, if you like. The trees are Peaches, Plums, Apricots, Cherries, &c., trained in the form marked in the sketch, the centre supported by two rows of iron rods, or pillars of such description as may suit the proprietor's taste, say six to eight feet, to allow of a good, roomy promenade.

The hot-water pipes shown in the sketch to form the edges, which might be painted, and dusted while wet with sand, to give them the look of stone. Allowing this to take in all eight feet, you will have borders six feet wide on each side. Now, if even the house was covered completely with trees, the borders might be made very interesting, by covering them with dwarf Ferns and Mosses, introducing Cyclamens, early Tulips, Hyacinths, Ixias, Seillas, Snowdrops, the Musk Mimulus, dwarf Thyme, hardy Orchids, in summer, &c., taking care to keep everything low. Now, fancy such a house when the Peaches, &c., are in bloom and fruit, or, in fact, any time. In summer, shade is wanted; in winter, light and air; *here you have it*, and without you turn it into a store-house for bedding plants, or a green-house in winter, you may never want to light a fire. My reason for introducing one at all is, that it enables you to take every advantage of favourable weather, to bring on the trees, and, at the same time, run no risk in severe frosts occurring in April and May. The want of this is a great drawback on Mr. Rivers's plan. For instance, what can be

a piece of greater absurdity, than when he states—*a climate of a well-built Orchard-house is spring-frost proof*. See what B——, from Kelso, page 90, gained by covering his trees with glass. But I refer your readers to my own article, page 9 and 10. They will see that I state my Peaches have been later in ripening for the last three years; the reason of this is, my profession has taken me from home in March, April, and May, these three seasons, and I have been afraid to take the advantage of the glass to bring on my Peaches, from losing the crop of one range in one night in April, while in bloom, by the frost; not because my man forgot to light a fire, but it had been stormy, and blown the chimney-pot off into the chimney, and my man had not the presence of mind to place two or three pots with hot ashes into the house, when he found the fire would not burn. It was July or August before I found it out, as the man did not tell me; and I blamed him for not giving air enough; therefore, houses of this description in the hands of the inexperienced are dangerous playthings. If they are not expected to produce ripe fruit till September and October, *what is the use of Orchard-houses*.

In page 109 of this Volume of THE COTTAGE GARDENER, Mr. Rivers tells us how to make boxes, but it is surely a mistake. Can this really be on the 13th of November, 1855. It appears to me almost impossible, though everybody knew, that boxes, whether made of slate, oak, &c., for trees that would remain seven years in them, but why not fifty, were all made with moveable sides, so that the roots were as easily got at as the tops, and if large, why should there not be castors under each corner, so that they could be easily turned.



No. 2, I shall call a store-house. On referring to the sketch, you will see a cross section of five beds, which, on an average, are four feet wide; and take, for instance, a length of fifty feet, will make in all 1,000 square feet of surface for bedding-out plants, Strawberries, French Beans, and Cucumbers, &c. I use it for, say, on the lower beds, Calceolarias, Fuchsias, Salvias, Penstemons, &c., and fill the centre beds with Geraniums, Heliotropes, &c., the top one with Verbenas, Petunias, &c. It may be asked, How do you get to water the top bed? As you enter the house it continues over head four feet, then an opening of three to four feet, and goes on again eight feet; and then another opening, and so on. The fifty feet in length will allow of thirty Vines, averaging, on a fair crop, fifteen bunches of grapes each. As the aspect of the house is east and west, and as they are not planted opposite each other, they have the full benefit of the sun. It will also hold thirty Peach-trees, on a fair average producing three dozen each; therefore you may reasonably expect 450 bunches of Grapes, and 1080 Peaches or Nectarines.

No. 3, is similar to No. 2, in dimensions, the top bed being dispensed with, and two extra rows of store pots substituted. These are surely new? Oh, no! as old as the rest. All I can claim is the arrangement of the heating, the shelves, and beds. These three houses are fifty feet each in length; the centre one is shown as heated by hot air, and hot water also, at the option of the proprietor. To prevent being alarmed by Mr. Ayres,—“Please, Sir, the boiler is burst,” and, “Oh! Sir, the flue is burst,”—the latter has occurred nearer home,—I need

hardly tell the stay-at-home's how easily one fire would heat the whole. I prefer the sashes fixed; small squares of glass, not air-tight; the air given at the top, either by a few moveable, small lights, or, what is preferable, ventilators, on similar principles, in the way conservatories are generally done. A house of this description, arranged as No. 1, will give 1,400 superficial feet for training Peaches, &c.; and, allowing eight inches square for one Peach—which is no very extravagant expectation—you will have 2,100; a house the length of Mr. Rivers's, of sixty-six feet, 2,772; not Tom Thumb's, but Peaches, the size that has realised £1 per dozen as late as the 10th of August, and 10s. on the 24th, within these last three years, in Covent Garden, without asking for it. As to varieties, you may have all the varieties in cultivation worth a place, and even those that are not worth it, as you may have a score of sorts on one tree if you like; and by placing the earliest sorts at one end, you may, with little trouble, prolong their season to all reasonable limits. Besides, you may have them much earlier in a house of this description; and, if the borders are properly prepared, there need be no alarm about the Moss, Ferns, &c., covering the border. What a fine show Chrysanthemums would make in this dull season in such a house as this! As to watering the trees at the roots, under ordinary circumstances, they will take no harm if you never give them a drop; and a good syringing about as often as a labourer wants a clean shirt will do them more good than being always at it.—D. FERGUSON, *Stowe, Buckingham.*

(To be continued.)

VEGETABLE CULTURE AND COOKERY.

BORAGE.

FORMERLY this was much more extensively cultivated than it is at present; and although its use is now almost discontinued, it is still to be found in the seedsmen's catalogues. The leaves, flowers, and young tops, are the parts used, and, according to some writers, singular qualities are ascribed to them. Evelyn says, "the tender leaves and flowers, especially, may be eaten in composition, but above all, the sprigs in wine, like those of Balm, are of known virtue to revive the hypochondriac, and cheer the hard student." Langley says, "The flowers being eaten in salads, exhilarate and make the mind glad," and the parts used are "the flowers and tender leaves when eaten in a salad; the leaves and young tops, with their blossoms, when used for a cool tankard, in wine, &c."

Borage is raised from seed, which is sown either broadcast or in rows, in March or April, in the situation where it is intended to remain; and when the plants are about two inches high they are thinned out to a foot apart. These will furnish a supply during the summer till October and November; and if a crop is intended to stand the winter, another sowing may be made in August or September.

COOL TANKARD.—For making a Cool Tankard, Dr. Kitchener gives the following instructions. A quart of mild ale, a glass of white wine, one of brandy, one of capillaire, the juice of a lemon, a roll of the peel pared thin; nutmeg grated at the top, a sprig of Borage or Balm, and a bit of toasted bread.

BORECOLE.

This is a variety of the common Wild Cabbage, growing with a stem from two feet to two-feet-and-a-half high, producing numerous side-shoots, and furnished with large leaves, which are very much crumpled and curled on the margin. The names by which it is known are *kail* or *kale*, *Scotch Kale*, *Kilmaurs Kale*, *German Greens*, *Curled Greens*, and *Curlies*. There are three varieties, the *Tall*, the *Dwarf*, and the *Heading*, the last being a new introduction, and forming itself into a head like the cabbage and Savoy, while the others produce numerous side-shoots. Borecole is one of the best and most profitable winter greens we have, and it is an unfailing resource in the most severe winters, when every other plant of the kind has perished; no garden, therefore, ought to be without an abundant supply.

Borecole is raised from seed, which is sown on a bed in the open ground, in the latter end of March and beginning

of April; the soil is to be prepared with a fine surface, and the seed sown broadcast, and raked in. As soon as the plants are four inches high, the strongest are to be thinned out and transplanted where they are to remain, in rows two-feet-and-a-half apart, and a foot-and-a-half distance in the rows. This may be done in the middle of June, and in October and November they will be ready for use.

Some of the smaller plants, which were left in the seed-bed, should be pricked out into another bed, about four inches distance from each other, and in July planted out where they are to remain, in the same way as the others were, and they will come in to stand during winter, and furnish a supply of tender leaves and sprouts in the spring.

When first planted out, Borecole should receive a good watering till fully established; and in autumn the plants should be earthed up on both sides to secure them against high winds. Before the leaves are fit for use, they should have endured a good sharp frost to make them sufficiently tender; and in spring the plants will throw out a plentiful supply of tender shoots, which will furnish one of the most delicious greens the garden can produce.

TO DRESS BORECOLE.—Select those leaves only that are fresh and succulent, discarding all which show a tendency to turn yellow, and never gather them till they are to be used. Should they be allowed to become flaccid, no art will ever restore them to their former crisp and succulent state; but as in large towns where vegetables are supplied through the markets and greengrocers it rarely happens that they can be procured in that state of freshness which is obtained when taken directly from the garden, it will be found advantageous before cooking them to immerse them for a short time in cold spring water. Should Borecole be frozen when gathered, lay them in cold water for an hour before boiling, and put a piece of saltpetre in the saucepan when set on the fire. Before boiling them, see that they are carefully washed, and cleansed from insects, dust, and dirt; then put them into a saucepan without a lid, in which there is an abundance of briskly boiling water, to which a little salt has been previously added. Be careful to keep the water constantly boiling, and when the vegetables sink they are done enough. Take them up immediately, otherwise the colour and flavour will be lost, and drain the water thoroughly from them before sending them to table.

Greens of all kinds should be boiled in *soft* water, but when such cannot be obtained, and the water is hard, the addition of a piece of soda will preserve the colour.—ROGER ASHPOLE.

VARIETIES OF THE CANARY BIRD.

(Continued from page 116.)

It may not be out of place, as I have described the management of these pretty birds, now to make a few remarks as to their varieties. All naturalists that I have consulted ascribe the origin of our domesticated Canaries to the wild originals of the Canary Islands, of which I have not met with any minute or accurate description, a circumstance I much regret. W. Aug. Osbaldiston, Esq., writing in his "British Sportsman," in 1792, describes the Canary as a green bird, and says that they cannot be distinguished by some country people from our common green bird; all other naturalists agree that the wild colour is green. Some, too, are of opinion that there are other varieties to be found in a wild state; and Dr. Bechstein says, that there are two birds found in the south of Europe, the Serin and Citril Finches, that are so nearly allied to the Canary that they breed freely together; and he also states, that "The resemblance is indeed so close, that I should take the Citril Finch for the original wild stock of the Canary, were not such to be found in the Canary Islands at this day."

I lately had in my possession a Canary that was caught wild in the woods of St. Helena, that much resembled his description of the Serin, the beak of which was short, thick, and dark; the shanks and toes were also very dark, the irides brown, the upper parts of the body of a bright green, the quill feathers of the wings and tail black edged with green; over the beak and passing backwards across the eyes was a yellow stripe; the throat, breast, and under parts were also yellow;

the bird was old, and I was unsuccessful in breeding from him among our domestic Canaries. I have formerly seen many specimens of a similar bright green plumage, but such are now rarely met with; grey being now a much more frequent colour, though I regard the bright or parrot-green, as the original, and by far the handsomest colour; but among the tame Canaries there is great variety in this respect, and some authors have enumerated as many as twenty-nine or thirty varieties of colour, supposed to be the effect of domestication and careful breeding. There are, however, other differences, which I consider of more importance than mere colour. I allude to their varieties of shape and size; for instance, our old-fashioned English Canaries are short, thick-made birds; those of Germany are small, delicate, and often have red eyes; while the Belgian birds are long and sturdy, and, to my fancy, by far exceed the others in appearance. I have had them measure eight inches from the tip of the beak to the end of the tail, and I believe they often exceed that length. To be handsome birds they must stand upright, and hold their head and tail in a direct line; for if they stoop, or, as the fanciers term it, are "hooped," that is, their shoulders stuck up, and their tails drooping down, which many of the long birds are apt to do, they lose much of their beauty. Another peculiarity of these handsome birds is the folding of the feathers on the chest, the plume on one side overlapping the other, forming what is termed the shirt frill; birds of this kind are very scarce in this country, and if of good form and colour are very valuable even in Belgium. Some of the French fanciers breed tolerably long birds, but their chief aim is to obtain them as slim as possible; their rule is, a Canary ought to pass through a wedding-ring; but such birds I consider of very tender and delicate constitutions. I have, for some years, bred the long Belgium birds, and much prefer them, both for figure and song, as well as hardihood and prolificacy; but my present stock is smaller than formerly, owing to crossing with English birds, from the difficulty of obtaining fresh blood of the original variety.

As I before mentioned, it is in the colouring, or the divisions of colours and markings, that the greatest variety occurs, and many of these, from their beauty and regularity, are highly prized; these sub-varieties, perhaps accidental at first, have, by careful breeding, become fixed breeds; and as this, as in all other matters of fancy, depends much on taste, so each variety has its particular advocates and admirers. To describe all the varieties, their points, and properties, would take too much space for the present paper, and as there are many I am scarcely acquainted with, I shall conclude this paper with a brief summary of some of the principal colours; of these, the *parrot-green*, with lighter breasts and without any white, should take precedence, as nearest the wild original.

Bright yellows, or *Jouques*, are usually great favourites, and must be free from any dark feathers. *Mealies* are very similar, but the edges of the feathers are white, from which cause they are not so highly prized, though frequently the stronger birds. *Greys* much resemble the common Grey Linnets in colour, but rather more inclining to olive-brown, and though strong, hearty birds, are but little cared for. *Duns* or *Cinnamons*, sometimes called *Quakers*, are of a drab, or cinnamon-brown colour, and are among the most difficult to procure. These are all that I call to mind of the whole coloured birds, but of piers, or mixtures, there are a great many. The *Lizards* are, perhaps, the best known variety; the body is of a greenish-grey, the feathers edged or spangled with white or yellow; the whole of the top of the head being clear yellow, or white; the bird must be accurate in its marking, or it loses caste. The present fancy bird is somewhat of a nondescript; when young, its plumage is much like a lizard; at the first moult it changes its body feathers, and assumes a coat of yellow; but, as young birds rarely change their quill feathers at the first moulting, it retains eighteen dark feathers in each wing, and twelve in the tail, it then being a fancy bird, and in show condition, which is difficult to obtain; and when it moults the larger feathers they come lighter; thus, it will be seen, a fancy bird retains its peculiarity only for a short time, and is then in a transition state; consequently, I prefer the continental fancy birds, which are bred of a permanent marking, and equally exact as to the divisions of colour; some yellow, with dark turned

crowns or crests; others dark, with white or yellow heads and tails; others, again, beautifully yellow, with the head and wings coloured; some grey, some almost black, others green, or cinnamon; these markings are very pretty, and when accurate are considered valuable, and the birds rarely alter the colour of any feathers during their life.—B. P. BRENT.

THE FRUIT-TREE CULTURE OF TO-DAY.

AH me! what a happy man is Mr. Robson! He lives in the garden of England, Kent. He is, doubtless, a travelled gardener; he has been to look at the Orchard-house trees of Mr. Rivers, now some seven years old, and likely to last three or four times seven years; he has also seen those of Mr. Lane; those of Mr. Bewley, at Newton Park, near Dublin, and, of course, those at Chiswick. He has also seen in Belgium, in Germany, and more particularly in France, those plantations of dwarf Apple and Pear trees; the former on the Paradise, the latter on the Quince stock! A friend just returned from Bigorre, in the Pyrenees, says, "There is no place like Bigorre for growing pyramidal Pears; I never saw such beauties, they covered every tree with fruit." I presume he has not omitted, above all, to visit the Royal Gardens, in Russia, where Orchards of fruit-trees of all kinds are, and have been, grown in pots and tubs for many years, without any symptoms of decay from the confined position of their roots.

Mr. Robson has, of course, seen all those variations in fruit-tree culture, and he has returned to his own garden with its high brick walls, well covered with Peach and Apricot trees that never suffer from spring frosts, nor any other plagues!—to his well-pruned espaliers on each side of his garden walks; to his orchard, filled with large umbrageous standard trees unpruned, but still prolific; and he says, "Ah, this beats all your new notions; what can a gardener want to see better than this? Talk about Orchard-houses and miniature fruit-gardens—they are all bosh."

Ah, Mr. Robson! I repeat, you are a happy man.

John Bull has always been a little too happy—in his own conceit—; he could "beat four Frenchmen," and as to a French fruit-garden, it was a humbug. Recent events have made John begin to doubt respecting what the French do and have done, not only in war, but in the peaceful arts; and he reads carefully written, impartial reports of the many, I almost fear too many, things in which they excel us, with an anxious shrug. Can we not, therefore, take a lesson from them in the art of fruit-tree culture? I mean that happy way they have of making a *very* small garden rival that of a millionaire in the variety of its products, and a *very* small kitchen, cook a great number of exquisite dishes? I think we can.

I was long ago smitten with the idea of making a miniature fruit-garden—perhaps twenty years ago; and, will Mr. Robson believe me? no longer ago than last April, when the blossom-buds of the Pear-trees were on the point of bursting, I planted a small, irregular piece of ground with Pear-tree bushes, grafted on the Quince stock, and Apples, on the Paradise stock. These trees are four feet apart, row from row, and four feet apart in the rows. I gathered from them Pears and Apples as fine, and, in some respects, finer, as those taken from established trees. Now, is not this pleasant? Mind, I do not live in Kent, and have no high walls nor well-pruned espaliers, and yet I can give my friends a fine dessert.

I have a dear friend who is very fond of Peaches and Nectarines; but his garden is clay, and his climate cold: his Peach-trees on his walls always failed in bearing. Four years ago he built an Orchard-house; the first year he had *some* fruit, and every year more abundant crops. Now, really, this seems an agreeable deviation from honest John Bull's established practice of training Peach and Nectarine-trees to brick walls.

Another friend writes me from near Devonport (his letter is dated Nov. 21, 1855): "I have had a very good crop of Apricots in my Orchard-house, especially from the *Moor Park* and large *Peach*; the latter is by far the best in every respect." Now, this gentleman could not grow Apricots on walls in that part of Devonshire, as the trees come so early

into bloom, and are always killed by spring frosts. For three or four years he has had fine and abundant crops from his Orchard-house. Again, how agreeable it is to be able to conquer the defects of climate with so much facility. I have heard that the only failures of Orchard-houses have been in such counties as Kent and Surrey, and near London, owing to the self-called gardeners stifling the trees, and forgetting that, in a warm locality, too much air cannot be given to Peach and Nectarine-trees grown under glass. I have also heard, from a reliable source, that more Orchard-houses are being built this autumn than was ever before known. I happen to know of six, each from eighty to 100 feet long, and twenty feet wide.

Mr. Robson states that fruit-growing is not better, or so well, understood now as it was fifty years ago. Granted; for as far as my experience has gone, the cultivation of fruit-trees *by* the people, and *for* the people, has *never* been understood; our famed Kentish orchards are masses of entanglement and unwise culture. Instead of planting one or two thousands of one variety of fruit, well known to succeed well in a particular locality, one or two hundred are planted of twenty or thirty kinds, all of unequal growth, requiring to be gathered at different periods, and thus leading to much irregularity. I saw the two thousand trees of *Louise Bonne* Pears, mentioned by Mr. Hogg, in page 139. They were pictures of fertility and good culture (I happen to know that their produce made a large sum in Covent Garden), and I at once felt aware how profitable a well-managed fruit-orchard must be.

They manage such things very differently in Kent. They plant standard trees, in many cases, without any attention as to what points of the compass the rows abut. The orchards are either under grass or planted with Gooseberries and Currants, and the ground dug over every season carelessly, so that every fibrous surface-root is destroyed. The shoots of the trees, after many years growth, are sometimes thinned, and sometimes not, and never properly pruned. Verily, I do believe that we grew fruit fifty years ago as well as we do now.

I have a gardening friend, who resided a year or two in Germany. When he returned to England he was quite distressed to see the neglected state of our garden fruit-trees; unpruned, rude-growing standards, and equally rude dwarfs, growing in the borders of kitchen-gardens, which ought to have been unshaded and appropriated solely to vegetables; for in Germany he had seen all the fruit-trees, even in the gardens of the poorest peasants, carefully pruned and kept in a comparatively small compass. Other orchard trees also pruned with care, so that the branches diverged equally from the stem, and all parts of the tree felt the influence of the sun and air.

I will now, with permission, give my idea of what a Kentish orchard, planted for commercial purposes, ought to be.

Site.—A gentle slope to the south-west.

Soil.—A deep loam, rather tenacious, resting on a dry subsoil; if stony all the better.

Varieties.—Five hundred or a thousand each of good sorts well known in the market, and adapted to the climate.

Trees.—Not standards, but such as have shoots up the stems; call them pyramids if you will.

Disposition.—In rows abutting north-east and south-west, or north and south, so that the sun will shine between the rows the warmest portion of the day.

Distance.—Ten feet, row from row, and ten feet apart in the rows.

Pruning.—At the time of planting the shoots should be thinned out, and a sufficient number left so as to diverge at regular distances from the stem, and annually, in June, these should be gone over with the pruning scissors, and all the side-shoots and lateral branches shortened to within two inches, leaving the leading shoot in each lateral branch untouched. At the end of August, the leading shoot in each lateral branch should be shortened to within ten or twelve inches, more or less, according to the habit of the variety. If a robust grower, fourteen inches will be a good length to leave the shoot of the season; if a weak grower, then eight inches will be enough.

Culture.—For two years after planting, five feet of the ten feet space between each row may be cropped with

Potatoes, or dwarf Peas, or some crop that does not root deeply. After that the whole of the ground to be uncropped, and to be lightly forked over in spring (in doing this near the trees the surface must be merely loosened), and kept clear from weeds by the hoe all summer. A capital instrument for cleaning an orchard of this description is the "Cultivator," invented by Dr. Newington, of Ticehurst. This will even do away with the necessity of using the fork in spring, for it stirs the soil and cuts up the weeds. One man can go over a large space of ground in a day.

The Future.—After twelve or fifteen years, if the soil be rich and good, every alternate row of trees should be removed. If their roots are pruned in autumn, they may be removed to a fresh orchard with safety in the following autumn. At the end, say of twenty years, every alternate tree should be removed, leaving the permanent trees twenty feet apart; they should by this time be fine, uniform, spreading trees, occupying nearly all the ground. Their fruit will be very fine, for the soil being kept clear from weeds, much benefit to the fruit and trees will be derived from the radiation and heat from its surface. The equinoctial gales of autumn will do but little injury compared with what they do to fruit on standards; and as it can be gathered without heavy ladders (often so injurious to standard fruit-trees), a great saving of labour is effected. In fine, a Kentish orchard, planted on this principle, and these large pyramidal trees properly attended to, would be a sight worth seeing, and, moreover, would *pay well*.—PYRUS MOLLISS.

NEW BOOKS.

CHEMICAL FIELD LECTURES. *By Dr. Julius A. Stöckhardt.**

WE have read and have upon our shelves the Agricultural-Chemical works of Davy, Liebig, Johnston, and of various other writers of minor note, all containing valuable information, but none of them in a form so readable or so useful as this. We shall have occasion to refer frequently to its pages, but must at once recommend it to our readers. If there are any among them who doubt whether chemistry has produced any benefits to the cultivator of the soil, let the following brief extract from the chapter entitled "Chemistry, the Farmer's Home-friend," help to dispel that doubt:—

"Chemistry, moreover, may become of especial use to the agriculturist when he carries on, in addition to mere tillage and grazing, *manufactures connected with agricultural produce*, such as, distilling, brewing, the preparation of starch or starch-sugar, and the manufacture of sugar from beet-root, &c. Here it has not been found so difficult a task to gain the confidence of the farmer, because the advantages to which it led were so evident, as to admit of direct translation into hard cash. Reasons of this kind have always the greatest power in producing conviction, and they gain acceptance at once. Since chemistry here possesses that which it also desires to gain on the land and in the stable of the farmer, viz. confidence, it would be superfluous to add further assurances, proofs, and illustrations.

"The reason why chemistry so soon succeeded here in producing positive vouchers of its utility, lies simply in the fact, that in researches of this kind it has to do, not with living bodies in a perpetual state of change, like plants and animals, but with inanimate substances, which admit of chemical examination more readily than the former. As long as a plant or an animal lives, the chemical processes are under the guardianship of a higher, mysterious power, called the *vital force*, and are compelled by this to furnish the materials for the construction of the animal or vegetable organism. The vital force is, so to speak, the architect which designs the building, whilst the chemical processes must see to the provision of the requisite materials, and their elaboration in conformity with the design. In lifeless bodies, on the contrary, this guardianship no longer exists, and the chemical processes have free and unimpeded scope for action. The chemist can evoke and imitate the action of chemical forces, but by no means that of the vital

* *A Familiar Exposition of the Chemistry of Agriculture, addressed to Farmers.* By Dr. J. A. Stöckhardt, Edited with notes, by Arthur Hentfrey, Esq., F.R.S., &c. London: H. G. Bohn. 1855.

force; therefore, in cases where chemical power enjoys free dominion, he will attain to positive results more easily and rapidly than in others, where the vital force, over which he can exercise no sway, comes at the same time into opposition with him.

"Finally, chemistry possesses a detective function, whereby it proves useful to every man, and therefore to the farmer, since it discloses frauds and impostures, to which, as is well known, all are at present more exposed than formerly. Pure goods! Genuine goods! Solid goods! Real goods! What manufacturer or merchant does not now-a-days deem himself justified in stamping one of these commendatory appellations upon his articles of trade! And yet his real linen perhaps contains cotton; his choicest soap, water, glue, or clay; his genuine syrup, starch-sugar; his guano, or bone-dust, sand, earth, lime-stone, &c. Against such adulterations and losses, chemistry offers the most solid and secure defence, since it possesses the power of bringing to light admixtures and adulterations, however cunningly contrived, which our eyes and other means of proof are unable to detect. Many chemical tests of this kind have been already so simplified, that any one may use them for himself without much cost or trouble."

FLORA OF THE COLOSSEUM OF ROME. By R. Deakin, M.D.*

A MORE useless book has rarely issued from the press. It is too drily scientific to be popular, yet enough of poetry and common-place is mixed with it to make the botanist view it as a work for amusement more than of science. It is a book suited neither for the learned nor the unlearned. It cannot even be relied upon for the spelling of the names of plants. We open it at pp. 196, 197, and on one we find *Asparagus acutefolius*, instead of "acutifolius;" and on the other, RUSEUS, instead of RUSCUS.

TREATISE ON THE VINE DISEASE. By James Cuthill,†

THE disease alluded to by Mr. Cuthill is the Mildew. The pith of his amusing pamphlet is contained in the following extracts:—

"I once planted two large vines in a new hot-house at Fulham; the plants, taken out of a conservatory, were upwards of ten years old. The roots were pruned, and in the second year after planting they bore excellent crops. This was more than twenty years since, and the vines are now every year bearing splendid crops of grapes. It would be useless to multiply examples; we gardeners, living in such a changeable climate, are compelled to experiment continually upon all sorts of fruits, flowers, and other vegetable productions.

"In England, when we find a house of grapes going wrong, we first look to the roots. If we find, on taking off the mould, that the roots have got too low down among the subsoil, we bring up as many as we can of the fibrous roots, and cut off the larger ones, leaving them, according to circumstances, from five to ten feet long. Fresh mould is then placed under them, and every root brought to within a foot of the surface. I here speak in reference to old vines.

"The roots of the vine in the wine countries will derive much benefit from pruning; the plants would be better nourished, since the roots would be much more fibrous, while the whole would be better under control. The present plan allows the roots to choke or eat one another up.

"In the next place, early pruning of the vine in autumn must be enforced. If the plants are pruned early in November, the grapes will be ripe a fortnight or three weeks earlier the next summer. Any one will be convinced of this who looks at the well-swollen eyes of those vines whose shoots are left on through the winter. Cutting them off after they have accumulated and deposited so much of the elaborated food, is a total waste of what nature would otherwise concentrate in the stems destined to bear the next crop.

* FLORA OF THE COLOSSEUM AT ROME, or illustrations and descriptions of four hundred and twenty plants growing spontaneously upon the ruins of the Colosseum of Rome. By R. Deakin, M.D. London: Groombridge and Sons. 1855.

† TREATISE ON THE VINE DISEASE, which is now destroying the crops of Grapes throughout the Vineyards of Europe, &c. By James Cuthill, Horticulturist &c. London: Hamilton and Co. 1855.

"By the long-continued cropping on the shallow system, the land must be greatly impoverished; and I do not hesitate to tell the wine-growers, that their land is starved of everything but that which God gives them for nothing—water, and too much of this, without proper proportions of other ingredients, will bring on disease.

"I see in the Gardener's Chronicle, that the growers round Naples have followed the plan which I published in the London papers, that of keeping the vines near the ground, with much better results than any other.

"I have this day (Oct. 20th) been to see another case of flat training, at Mr. Baker's, near the Old Kent Road. He has two vines trained upon a flat trellis, projecting about eight feet from the cottage, this canopy being about seven feet high. One vine had seventy, the other one hundred-and-fifty bunches, all nearly ripe, and those Black Hamburg. A sewer passes beneath, where they feed from; his vines are always pruned at the fall of the leaf in November. Mr. Baker is very careful never to allow any superfluous shoots during the summer's growth. He has never had the disease." We presume that it is meant that his Vines never had.

QUERIES AND ANSWERS.

GARDENING.

FERNS UNDER SHADE

"X. Y. Z. would be much obliged to the Editor of THE COTTAGE GARDENER for a list of hardy Ferns, loving shade; i.e., that may be cultivated under the shade and drip of established deciduous trees. He proposes to make a rock-work under the trees, and to plant the Ferns on it. His gardener brought home, amongst some cuttings, in the summer, some pieces of a *Salvia*, which he called '*Cordata*.' X. Y. Z. does not recognise it, and would be glad to know its synonyme and culture; also that of *Salvia strictiflora*."

[For your shaded border the following Ferns would do:—*Athyrium filix-femina*, *Osmunda regalis*, *Polypodium driopteris*, *Onoclea sensibilis*, and *Polystichum lonchitis*.

Salvia strictiflora is as old Peruvian plant, of no great beauty, and one which has been out of fashion for the last twenty years, or since it was published in the *Botanical Magazine*, in 1831. It is, however, a member of a distinct section of the genus, and, therefore, a useful plant in a botanic collection. Such men as Mr. Baxter, of your Botanic Garden, are the best authorities for such plants; but the culture of *Salvia strictiflora* is very simple. A cold, dry frame is the best place for it in the winter, to be re-potted in April, in rich, light soil; to be increased from cuttings in July and August, after the plant has done flowering, and to keep it young,—which means, that two-year-old plants should be thrown away, to be replaced with last year's plants, from cuttings.

Bentham, in his "*Labiatarum genera*," mentions and describes *Salvia cordata*. He says it is a native of South Brazil, has large blue flowers, and is about three feet high. It is a greenhouse herbaceous perennial.]

LEMON-TREE NOT BLOOMING.—HINT TO ADVERTISERS.—POTTING FERNS.

"I grafted, four years since, a Lemon upon a stock two inches round, at least, potted in an 8-inch pot, in which it has been ever since, with yearly top-dressing. The head is a good sturdy one, wood well ripened; but it has shown no appearance of fruiting. How long should it be before doing so? I keep it in a cool greenhouse, heated only to start my Vines, or keep out frost. Should I re-pot the tree into a larger pot, or let it remain as now? I fear the re-potting would make wood and retard fruiting. When should it be re-potted?

I think the florists who advertise in your columns would do well if, whenever they observed very particularly good plants noticed by your able writers, they would price it in their advertisements the following week. I have often felt disposed to buy a thing after reading about it, but have been

at a loss to know where to learn the price of it. Perhaps the hint might be taken, and found advantageous.

Can you tell me how the Fountains, named in your last week's number, page 113, are supplied with water, and of whom they may be purchased? I have several good Ferns in 6-inch pots doing well; but the pots seem quite full of roots: should I re-pot them, and at what time? I have one plant I call Hare's-foot Fern, from the root from which the fronds spring resembling a hare's foot, that is, quite crammed with these feet. Ought I to re-pot it, and when? I wish to make them specimen plants for a show.—L. R."

[If the wood of your *Lemon plant* was well grown last year, and well ripened in the autumn, the flowers should appear as soon as you give the plant enough heat to grow freely. The heat used to start the Vines will just do; but, provided the wood was not well ripened, you will not have many flowers, and must take care not to let your plant stand all the summer beneath the shade of the Vines, or the young shoots may be barren the second year. If not much pot-bound, we would advise seeing to the drainage, and rich surface dressings, instead of shifting. Let the potting, if necessary, be done just as the temperature is increased, to encourage growth.

Any respectable nurseryman would tell the price of any article, on application; but mere price, independent of size and quality, is an imperfect criterion. All new plants are dear; most, after the second or third season, are cheap enough. A Geranium may be dear at 1s., and one of the same kind cheap at 5s. We quite agree with you that it would be an advantage to have the prices in advertisements nevertheless, as one knows what expense he is going to before the bill comes.

You will have seen an answer last week about the *Fountains*. We would not touch your *Ferns* until the spring, as the heat and sun increases. You may shift them without any risk of injuring them. In a good stove they may be done at any time; but it is best to secure growth directly afterwards.]

TAKING UP LILIUM LANCIFOLIUM BULBS.

"I have cultivated, according to the instructions in *The Cottage Gardeners' Dictionary*, the fine bulbs *Lilium lancifolium*, in 11-inch pots, three in a pot, which were truly a magnificent sight throughout August and part of September. I have taken the bulbs out of the pots, and repotted the offsets, and have put the old bulbs away in a drawer, intending to keep them there till next March; but the outside scales of the bulbs look so withered and wrinkled that I am afraid I have done wrong.—G."

[It seems to be a natural law, from which there is no exception, that all bulbs which are made up of scales suffer severely by being dried out of the soil, and it is not good practice even to let the mould about them in pots get quite dry. Pray pot your bulbs at once in soil that is not quite dry, but give them no water for the next six weeks. It is poor economy for private growers to increase them from scales—in these days—an apt illustration of the penny wise and pound foolish school.]

SOIL FOR DIELYTRA SPECTABILIS.—EARLY-BLOOMING CHRYSANTHEMUMS.

"*Dielytra spectabilis*.—I was not more fortunate than your correspondent "Berkshire Kate" with the above flowers last winter; I lost several plants in pots, and also a strong one in the open border. They rotted away. I am disposed to think, that only in light, well-drained soils, or sheltered places, can this plant be justly said to be hardy, in the sense in which our indigenous Fumitories are so.

"*Chinese Chrysanthemums*.—My garden is open to the north and east, and although I can get these plants to grow freely, and from buds, I cannot get them well into flower before the frosts come on and destroy their beauty. Is any plan known of accelerating the bloom without artificial heat? protection under glass it does not suit me to give. Last year, I nipped in some of the first shoots, and it struck me that this might have thrown the bloom back, and I, therefore, suffered this year's growth to remain of the full

length, but with little or no difference in the result. I may also add, that I do not find the lately-advertised "August-flowering" varieties at all answer to the character given to them; indeed, they have proved with me very little earlier than the average of those before brought out.

"I ought, perhaps, to add, that in more favourable localities I have not experienced the difficulty respecting which I ask your assistance.—A. C., Chelmsford."

[You are quite right in your opinion about the proper soil for the *Dielytra*, but not as to the aspect or exposure; for it will grow on barren heaths and moors in the most open parts in this country. But in very rich soil, and more particularly in wet, undrained borders, it gets so top-heavy that a gust of wind blows it over and strangles it, or breaks its neck outright, and any such accident, with too much wet at bottom, would account for its rotting-off.

Speaking of *Chinese Chrysanthemums* is apt to puzzle one now-a-days; and we do not recollect to have ever heard of any one who said, or pretended to affirm, that a single kind of that race did bloom, or could be made to flower sooner than the first day of November. We can say, positively, ourselves, that no art of man can induce any of the Chinese *Chrysanthemums* to bloom one week sooner than that period, without forcing them, by heat, so as to spoil the appearance of the plants; but we can understand how early kinds may be had—some day—so as to come in as early as the French *Chrysanthemums*, or *Pompones*. One thing is quite certain from our own experiments; that is, if you make a cutting in February or March, and continue to grow it on all the season without stopping, you will not get it to bloom one hour before a cutting made on the 15th of June, and "nipped in" on the 15th of July; but by cutting in strong shoots and strong plants in September, it is quite possible to have *Chinese Chrysanthemums* in bloom up to the middle or end of May. One of our correspondents makes it a point to have them for his Easter parties, and has done so for some years back.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

BIRMINGHAM. 11th to 14th of December. Secs., J. Morgan, jun., Esq. Entries closed November 10th.

ESSEX. Dec. 27th, 28th, and 29th, at Colchester. Secs. Mr. G. E. Attwood, and Mr. W. A. Warwick. Entries close December 15th.

HANTS (SOUTH). 14th and 15th January, at Fareham. Sec. James James, Esq., Fareham. Entries close December 31st, 1855.

LIVERPOOL. 16th, 17th, and 18th of January. Sec. W. C. Worrall, Esq., 6, Lower Castle Street. Entries close December 24th.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. Sec. R. Hawksley, jun., Esq., Southwell. Entries closed November 20th.

PRESTON AND NORTH LANCASHIRE. Jan. 9th and 10th, at Preston. Secs. Messrs. Burnett, Leigh, and Hayhurst, Preston.

VALE OF AYLESBURY. January 2nd and 3rd. Secs. J. D. Muddiman, and Jas. Allen. Entries close December 20th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

STATE OF OUR VARIOUS BREEDS OF POULTRY.

(Concluded from page 96.)

THE great size of the *Malay* was, doubtless, a recommendation to many poultry-keepers, so long as no other fowl competed with it in this respect, but on the introduction of the *Shanghaes*, this advantage was only held in common with the latter. The properties and habits of the *Shanghaes*, moreover, were in many points such as justly entitled them to the preference, and, as a necessary consequence, *Malays* are less frequently seen at the present day than in by-gone years. This, of course, could not happen without a corresponding diminution of first-class specimens, and thus it accounts in every way for the reiterated complaints now heard of the inferiority of this class at our exhibitions. Regret, however, must be expressed at this result. Of all

our varieties of fowls, none, it may be safely asserted, possesses a more decidedly merited specific character than the Malay, and none appears to have preserved a closer resemblance to its original type, the "*Gallus giganteus*" of the Eastern Archipelago.

What shall be said of *Bantams*? Are they higher or lower on the scale of excellence than our older fanciers remember to have seen them? An impartial reply to this query requires the subdivision of this family, for, while it must be admitted, that the Sebrights, Gold and Silver alike, are not what they were, the Black, the White, and the Game Bantams are, probably, fully equal, if not superior, to their progenitors. What has caused the deterioration in the first-named birds belongs not to the present enquiry; the mere fact is now stated, and few, it is believed, will dissent from the opinion. If it be said, indeed, that the appearance of Bantams at our general poultry exhibitions is no just criterion of their merit, as the owners of many specimens of high excellence are unwilling to submit them to that competition, it can only be replied, that it may, indeed, be so, but that, on the other hand, it is at least strange, that the inducements to exhibit, which have acted so successfully in the cases of all other fowls, should fail here alone.

The "miscellaneous" class is now reached; a portion of the poultry show that has always especially attracted the attention of those who have looked to these institutions as tending to improve the breeds of the domestic fowl. New, distinct varieties, possessing an economical value, at least equal, if not superior to that of the breeds already known, were here desired, but this has, hitherto, not been accomplished.

Of novelties, indeed, we have had several instances; among these, the "*Fowls of the Sultan*," as they are termed, certainly deserve favourable mention as ornamental poultry, and other instances have occurred of meritorious character, but which, in strictness, should have appeared elsewhere; as, for an example, the *Andalusians*, which are simply a sub-variety of the Spanish fowl. Speaking of Spanish fowls, the opportunity may be taken to admit a decided inaccuracy in a former paper on this subject, where the term "*Minorcas*" was improperly applied to the red-faced Spanish. A just remonstrance was raised by a correspondent against this misnomer, and the excuse is insufficient, because the common application of a provincial term that one hears, day by day, in ordinary use, cannot be held to warrant its employment. The *Minorcas* are Spanish, as also the *Andalusians*, and the White and Speckled varieties of the same race. Their characters and properties are, in many respects, identical, for even the White face is more or less shared by all, though in many it extends little beyond the ear-lobe.

Of all the "*Ghondooks*," "*Ptarmigan*," "*Varnas*," "*Cossacks*," "*Russians*," and "*Bengals*," which, with an host of others, have sought a judicial estimate of their position in the poultry catalogue, it may be justly said, we have better birds already on our list, whether "feather," or "economical properties," be the test applied. Dissimilarity with other members of the poultry-yard, is, fortunately, an inducement with many to become the owners of fowls of this description; and, so far from finding fault with their choice, it is matter of satisfaction, since not merely is the search thus continued for an admitted desideratum, but breeds, certainly more or less distinct, which may gradually serve to elucidate the Natural History of the domestic "*Galli*," are thus preserved to us.

Geese are decidedly in advance of any former standard, and the introduction of the "*Toulouse*" breed is assuredly a boon of no little value. Hitherto, perhaps, exception may have been taken to the decisions of judges, who in this class have been sometimes held to have been too greatly influenced by weight alone; but usually, it should be remembered, form and feather presented little variation in the competing pens. Evidence of high breeding, manifested in the full development of the features of different varieties, is a point here, as elsewhere, to be held far in advance of the mere weight of a fatted bird.

Ducks, likewise, may thank the energetic originators of poultry shows; and, first and foremost of them, the *Aylesbury*, which are now, beyond all comparison, superior to their former standard. The *Rouens* of the early Bir-

mingham days were, however, in colour, not less than size, meritorious beyond the pens of subsequent years. The class for ducks of any other variety, is, year by year, decreasing; and this, too, on good grounds, since it seems an established fact, that no real competition can exist between any that have appeared and the two varieties already named. The Black East Indian Duck appears to have been lately bred too much with a view to size, by which the remarkably elegant proportions of the bird, as well as its lustrous plumage, have decidedly suffered. The Musk or Brazilian Duck fails to acquire new admirers,—a position resting on just grounds.

The progress effected by the *Turkey*-breeder has also been great. It may not, perhaps, be true, that heavier weights have been attained by individual specimens, than such as had been previously reached, but still the average merit of pens has decidedly risen, while the intermixture of the American blood has conferred a brilliancy of feather which, taken in conjunction with other valuable qualities, fully merit these terms of commendation.—W.

DISEASES OF FOWLS AND PIGEONS.

BRIGHT'S DISEASE IN A HEN.

At the time when Cochins were realising as many pounds as they now sell for shillings, a well-known exhibitor sent me a hamper of live pullets and cockerels, whose legs sprawled about on either side, and left their bodies to fall to the ground between them; the birds suffering from muscular debility, owing to being almost entirely fed on boiled rice, of which the per centage of flesh-forming food is very small. They all rapidly recovered under a treatment consisting of three grains of citrate of iron daily, and a more nutritive food. One of the pullets, being an exceedingly well-formed fowl, I retained in my stock until the present season, during which she has hatched three broods of chicken. She moulted after the last late brood, and recovered her usual weight, being apparently well, the only symptoms to be observed being extreme thirst and very watery evacuations. One morning she was found dead in the hen-house. On opening the body there was evidence of chronic inflammation of the lining membrane of the abdomen, and one of the kidneys was exceedingly small and wasted. I am in the habit of taking all my most useful specimens to the Museum at the College of Surgeons, and availing myself of the aid of the greatest microscopic authority of the day. On examining the kidneys, we found the tubular structure entirely obliterated in the wasted one, and the tubes were filled up with solid secretion in the other; both contained considerable quantities of oil, a liquid which is never found in a healthy kidney. As disease of the kidneys is very rare in fowls, and as the case is very interesting in a medical point of view, I have thought the account worth recording, although the symptoms are obscure during life, and the disease not amenable to medical remedies.

SCROFULOUS TUBERCLES IN A PIGEON.

I lately received, from a well-known breeder of Pouters, a magnificent old cock, seven inches in the limb, which was wasting gradually away without any other marked symptoms. Believing the disease to be owing to scrofulous tubercles in the liver, or other glands, I killed the bird, and, on opening it, found that the liver contained a number of hard tubercles as large as small marbles, and that others existed in the lungs. In an advanced stage of the disease no remedies could prove efficacious, and in my own stock I should never be desirous of preserving a bird tainted with scrofula. The case is interesting, as proving that scrofula may sometimes exist in Pigeons which are reared and kept in the most advantageous manner, this bird having varied food of the best quality, unlimited in supply, a dry residence, out-of-door exercise during the whole day, baths, and lime-rubbish. I may mention, that the disease was so strongly marked that the liver is now being presented as a specimen in the unrivalled Museum of the College of Surgeons.—W. B. TEGE-MEIER.

THE CIRENCESTER POULTRY SHOW.

It would seem that the columns of THE COTTAGE GARDENER are the fit place wherein we should treat of Poultry, if old associations have anything to do with it. The delicacies of both are put together, thus: Chickens and Asparagus, Ducklings and Peas. Still more appropriate is the connection between poultry and the farm, and it is therefore always a pleasure to speak of it as an adjunct to an Agricultural Exhibition.

This was the first attempt of the Gloucestershire Agricultural Society to unite them, and we think the success of their effort will lead to a continuance—in fact, it was a happy union.

The Show was held in a tent in Lord Bathurst's Park, a truly beautiful spot, within half-a-mile of the railway station. The pens were those registered by Mr. Cooke, of Colchester. This is the first time we have seen a show in which they were exclusively used, and we cannot speak too highly of them. They are economical, they ensure uniformity of appearance, they are easily put up, and, of course, easily removed. By using them, a committee can at once show the exact amount it will cost to fit up their exhibition, so far as pens, drinking-vessels, &c., are concerned; and, by an ingenious contrivance of the inventor, they can be locked so that no bird can get out or be removed except by the person in charge.

As this Society does not publish a catalogue prize list of Poultry, we must be content with a notice of the classes as they occur; and those of our friends who were commended must excuse us if we do not name them, but our limits will not allow it.

The first class was for adult *Dorkings*. The first prize was awarded to Mr. Leyborne Popham, of Reading; second, to Mr. McCann, Malvern; third, to Mr. Moons. Next came twenty-five pens of chickens, and the competition was very great. Mr. Belcher, of Abingdon, stood first; Mr. Rodbard, second; and the Hon. Mrs. Howard, of Milbourne, third. There were many high commendations in this class, and we are sure the whole of the *Dorkings* well deserved the encomium of the Judge, when he said they were most excellent.

We now come to the *Spanish*. In the adult class, Mr. Parsley; Mr. Davies, of Thornbury; and Mr. Jenner, of Lewes; took the prizes in order. Mr. Rodbard; Mr. Saunders, of Cowes; and Mrs. Stow, in like manner, took the honours for chickens. These names will be a guarantee for the quality of the birds shown. We must, however, say, that in the birds of 1855 we were disappointed in the pullets; the cocks were excellent. It may be that the near approach of Birmingham caused the best to be kept back.

Cochins of all colours were exhibited in the same class; and here there was a novelty, inasmuch as the Grouse birds, belonging to Mrs. Ford, of Exeter, distanced all the others. Miss Cripps was second, with Buff; and the Rev. Mr. Danberry third, with Black. If this Show is any criterion, the progress of the light birds is still downwards, as compared with former years. We must, however, exempt one pen of chickens belonging to Mr. Joshua, who took first prize with them, followed by Mr. Stodbard and Mr. Hincks. Mr. A. Snow, Mr. Bush, and Mr. Saunders, were the successful competitors in the *Brahma Pootra* class. We think the chickens shown here promise to be unusually good birds. It was a treat to see a good display of *Malays*; and the judge pronounced them an unusually good class. Mr. Leighton had the first prize, followed by Messrs. Lyne and Worsey. We believe the successful here would hold their own anywhere. The *Game* were perfect, and there were few numbers that did not deserve to be successful; but there were but six prizes, and of these, two first and two second went to Mr. Dyer, and the third to Messrs. Taylor and Dawson.

As in the *Cochins*, *Hamburgs* of every sort competed together; and although there were good birds, a pen of Golden-spangled chickens, belonging to Mr. Thompson, of Windsor, "walked over" for the first prize; the second being awarded to Mr. Worsey, for Gold-pencilled.

Miss M. Bury took prizes with two pens of excellent black *Polands* with white top-knots.

There was a very good display of *Bantams*. The first prize was awarded to Gold-faced, belonging to Mr. Portch;

second, to *Game*, belonging to Mr. Cottle; third, to *Black*, belonging to Mr. Dutton. One pen was disqualified, as the exhibitor put in three pullets instead of two. It cannot be too generally known that any such deviation must lead to disqualification.

Mr. Davies, of Thornbury, was first, and Mr. Hervey second, in *Geese*. From their weight and appearance we should think the former gentleman had them from the celebrated stock of his namesake, at Hounslow.

We have seldom seen so many good *Ducks*; but among the Aylesbury's faulty bills excluded all the best pens, and in every instance there was but one bad one. Messrs. Richards and Blandford were successful. Good *Rouens* were plentiful. Mr. Saunders took the prize; and Mrs. Squire, of Mildenhall, was equally fortunate with one of the best pens of *Buenos Ayrean* we ever saw. There were four lots of this last breed touching on perfection.

It will be seen our report is a panegyric; but it was richly deserved. The only cause for regret was, that so many really meritorious specimens should have passed unnoticed; but the improvement in all classes is so rapid, and the knowledge how to choose and how to exhibit is so diffused, that many must now be content with a commendation who would formerly have been sure of a prize.

Mr. Baily acted as Judge.

CHICKENS versus CHICKEN.

"Some, for renown, are singular and odd."—SWIFT.

I BEG to correct a grammatical error which is constantly recurring in *The Poultry Chronicle*; viz., the writing *chicken*, instead of *chickens*, in the plural. Formerly, this error was committed but by three contributors; but now, we see it, rampant, even in the very advertisements! Yet, I would fain hope, that this is but some waggish humour of the printer's devil—daubing out the ultimate *s* to create "our special wonder"—that we may have enough of it.

As, however, one indefatigable contributor on poultry matters, Mr. Tegetmeier, comes forward, in No. 308, and defends this error (and laughing to scorn, by-the-by, "Tristram Shandy," for presuming to hold a different opinion), I shall not scruple to deal with Mr. Tegetmeier's assertions, and quietly demonstrate the utter fallacy of all that he has advanced. As the elucidation of the truth is my sole object, I trust that Mr. Tegetmeier, and all who think as he does, will thank me for this collision with their opinions; inasmuch as the light of truth will thereby be struck out for their future guidance. Let me, at least, hope, that I, too, may not be denounced like poor Tristram, as "a would-be instructor, who has but a profound ignorance of the subject." We shall all part good friends yet, I'll warrant it.

To proceed. Mr. Tegetmeier begins by laying down three positions. I shall prove that all these, like the fabric of a vision, are baseless. He says, firstly, that "*chick* is an Anglo-Saxon word" (for *a* chicken); secondly, that "its proper Saxon plural is *chicken*;" and thirdly, that "in the Anglo-Saxon tongue plurals are often formed by the termination *en*."

I dislike retaliation; but I must observe, that nothing but the most "profound ignorance" of the Anglo-Saxon could have made Mr. Tegetmeier so far commit himself! Nay, the most cursory reference to any Anglo-Saxon Dictionary and Grammar would have shown him that his assertions are utterly groundless. Let me refer him to Bosworth's Dictionary and Grammar, to Vernon's Grammar, or to that more erudite Grammar, by Rask, translated by Thorpe.

He will at once see that, firstly, *there is no such word in the Anglo-Saxon as chick*; or, rather, it would have been *cic*; he will only find "*cicn*, a *chicken*." Again, there are no plurals in the Anglo-Saxon tongue formed by the termination *en*! Lastly, *chick* is nothing more than a *modern diminutive*; that is, a very young chicken: and further, he ought to have known, that it is applied to the tender young of different birds;—of the duck, the goose, the pelican, the pigeon, &c. If he will but take down from his shelf his copy of the Rev. Mr. Dixon's "*Aviary and the Dovecot*," he will there see, that the very young of the pigeon, are in-

variably, called *chick*, and *chicks* (the proper plural). If Mr. Dixon, though certainly the most learned writer on poultry of modern days, be not authority high enough, let him consult that more erudite of English Dictionaries by Richardson; where he will read "*chick* is applied to the young of various birds."

That our word, *chicken*, is truly Anglo-Saxon, there can be no question. Indeed, the Anglo-Saxon word "*cicen*, a *chicken*," is pronounced in that tongue precisely as we pronounce *chicken*. For the initial *c*, especially before a soft vowel, is pronounced like *ch*, as in the words *child*, and *chicken*;—(indeed, Rask, in his Grammar, quotes the word *chicken*, to illustrate the pronunciation of the initial *c* in *cicen* a *chicken*): in other cases *c* is pronounced like *k*, there being no letter *k* in the Anglo-Saxon. I state this, because I know, that one of your excellent contributors, who does and will write *chicken*, instead of *chickens*, in *The Poultry Chronicle*, "till I convince him that he is wrong," elaborately attempts to justify himself by rushing into German! If we will wander from the true point, we may as well stride over to the Bajibazook tongue at once.

But, Mr. Tegetmeier reserves his grand peroration to the last: it is equally a concentration of his argument and his wit. I must, in justice, give his own words. He says, "In the Anglo-Saxon tongue, plurals were often formed by the termination *en*. Thus we have *ox*, *oxen*; *child*, *children*; *house*, *housen*; *brother*, *brethren*; and *chick*, *chicken*, &c., &c., &c. If, therefore, we must have *chickens*, let us, at least, be consistent in absurdity, and, like stupid *mens* and *womens*, talk of our *childrens* and *brethrens*, our *oxens* and our *housens*."

If any Anglo-Saxon scholar read the above, he must exclaim, with Desdemona, "'Tis pitiful, 'tis wondrous pitiful!" or, if less poetical, he may say, with an eminent literary antiquarian and Anglo-Saxon scholar, who *did* read the passage, "These words have as much to do with each other as the moon has to do with green cheese!"

With the rest of your readers, I have to thank Mr. Tegetmeier for his many valuable contributions on poultry matters: few have taken more trouble, and few have done more than he has done. I say this with sincerity and with pleasure; but with this he must rest contented; for I cannot allow that he has *one tittle* of knowledge of Anglo-Saxon. In the first place, there is no such word as *cic*, a *chick* (*the very foundation on which he builds*) in the Anglo-Saxon language! Further, the words which he has cited, viz., *ox*, *house*, *child*, *brethren*, *man*, have no analogy, nothing to do, with *chicken*. Nay, more; they have no analogy with each other! being, most of them, not only of different genders, but they all of them form their plurals differently, in the Anglo-Saxon, and differently to *chicken*!

Thus *oxa*, an *ox*, has *oxan* in the plural; *cild*, a *child*, has but *cild* in the plural; but it sometimes has *cildra*; *brodor*, a *brother*, has *brodra*; *hus*, a *house*, has also *hus* in the plural; and *man*, a *man*, has *men* in the plural, as it is one of that list of irregular words in the Anglo-Saxon (there are but about eight), that form the plural by simply changing the vowel of the singular; that is, the *a* of *man*, into *e*, becoming *men*, plural; whilst *cicen*, a *chicken*, has *cicena*, plural. Surely, surely, nothing could be more unfortunate than these *proofs* that Mr. Tegetmeier has stumbled upon! My object is, however, not to exult, but to enlighten and convince. I may notice, in passing, a mistake he commits in English grammar, by saying that the plural of *brother* is *brethren*; it is *brothers*. *Brethren* is not a true plural at all; it is rather but a *collective*. (*Vide* Latham's "English Language," p. 212.) I have already shown that *en* is not, as stated, a frequent plural in the Anglo-Saxon tongue: *an* is of common occurrence, and it is usually rendered, in English, *en*.

Having now, I trust, "struck out the light of truth by this collision with Mr. Tegetmeier," and proved that he is utterly in error, I must, very briefly, show that I am in the right. It has, by some, been contended, that we may use the word *chicken* both in the singular and the plural number, just as we say *sheep* and *deer*. But, in the Anglo-Saxon, these words, *sceop*, a *sheep*; and *deor*, a *deer*, have no plural; or rather, it is the same as the singular.

The real question, then, is, has the Anglo-Saxon word *cicen*, a *chicken*, a plural,—a different plural termination; or has it

not?—that is the question. It has a plural, viz., *cicen*, a *chicken*; *cicena*, *chickens*. We give it, like most other such words, regularly formed, our own common plural *s*. There is no irregularity, nor peculiarity, in this word *cicen*, a *chicken*, in the Anglo-Saxon. It forms, in that tongue, its plural in a common manner; and so do we give it a plural, in our own language, in the common way.

For the satisfaction of your readers—though it is like taking a sledge-hammer to brain a fly—I may state, that I consulted my friend, R. G. Latham, M.A., a gentleman so well known for his knowledge of languages, author of that erudite work, "The English Language," and Professor of the English Language and Literature in the University College. And, especially, I bring forward the name of Thomas Wright, M.A., of Brompton, London, one of the very first literary antiquarians of our day, both of whom entirely coincide with me. The opinion of the latter gentleman I have already quoted, respecting the final peroration of Mr. Tegetmeier.

Mr. Latham writes me, "Chick is nothing more than a diminutive (not the singular) of *chicken*, and means a very young *chicken*—it is equally applied to the very young of different birds.

"Chick is singular—its plural is *chicks*."

"Chicken is undoubtedly singular—its plural is *chickens*."

"It never was correct to say 'two *chicken*.'"

Mr. Wright concludes his observations by saying, that "*Chick* is a mere modern diminutive of *chicken*, and means the very young of different birds; that *chick* is singular, and that its plural is *chicks*; that *chicken* is singular, and that its plural is *chickens*; that neither *custom*, nor any thing else, has made, or can make, *chicken* into a plural."

After such an opinion, from such a scholar as Mr. Wright, (the future secretary, I may add, of the Antiquarian Society) it would be supererogatory to dwell on further evidence. I will conclude, by referring to usage and old custom. Thus, in Wickliffe's Bible, published 300 years ago, we read "As an henne gederith here *chyckens* under here wyngs." So, also, in the writings of Chaucer, of Boyle, and of many others of the oldest and best English authors, examples occur, where *chicken* is used as the singular, and *chickens* in the plural. So, in common parlance, we say, a *chicken-hearted* fellow, not *chick-hearted*; at table we ask for the wing of a *chicken*, not for the wing of a *chick*! The Poultry Chronicle, in *The Cottage Gardener*—for the old Poultry Chronicle repudiated the error—is the only publication, ancient or modern, in which this fantastical blunder is made. I am told it is a provincialism in one part of Somersetshire. But enough; it must be seen, that by origin, by grammar, by ancient and by modern usage, we ought to write (and I specially beg and entreat in the Poultry Chronicle) *chick*, *chicks*; and *chicken*, *chickens*.

I have endeavoured to write as mildly as possible, but, if any one of my gentle readers fancy that I have not always acted up to my wishes, my defence shall be, to request him to cogitate how he would reply to any one who should gravely contend with him that the moon is made of green cheese! Would he be milder than I have been?—J. R. HORNER, M.D., Hull.

LONDON MARKETS.—DECEMBER 10TH.

COVENT GARDEN.

The supply of most articles, both Home Grown and Foreign, is now ample for the demand: indeed, prices have a rather downward tendency, especially in *Potatoes*, *Cobbs*, and *Filberts*, the holders of the latter article being anxious to effect sales. *Hamburgh Grapes* are now done for this season; *Spanish* and *Portugal* scarce.

FRUIT.			
Apples, kitchen, per bushel	2s. to 4s.	Raspberries	—
" dessert	4s. ,, 6s.	Strawberries, per pottle	—
Pears	4s. ,, 8s.	Oranges, per 100	4s. ,, 10s.
Peaches, per doz....	5s. ,, 8s.	Lemons	6s. ,, 12s.
Nectarines, per doz...	—	Almonds, per lb.	2s. ,, —
Plums, per sieve	4s. ,, 8s.	Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
Pine-apples, per lb...	4s. ,, 6s.	" Cobs, ditto ..	60s. ,, 70s.
Grapes, per lb.....	1s. ,, 6s.	" Barcelona, per bushel	20s. ,, 22s.
Foreign Melons, each	2s. ,, 4s.	Nuts, Brazil, per bushel	12s. ,, 14s.
Figs	—	Walnuts, per 1000 ..	9s. ,, 12s.
Gooseberries, per qt.	—	Chestnuts	—
Currants	—		

COVENT GARDEN—Continued.

VEGETABLES.

Cabbages, per doz. . .	9d. to 1s.
" Red, per doz. .	2s. , 4s.
Cauliflowers, per doz. .	2s. , 4s.
Broccoli	1s. , 2s.
Savoy	—
Greens, per dozen	—
bunches	2s. , 3s.
Spinach, per sieve . . .	1s. , 2s.
Beans	—
French Beans, per	—
half sieve	—
Scarlet Runners . . .	1s. 6d. , 3s.
Peas, per bushel . . .	3s. , 5s.
Carrots, per bunch . .	4d. , 6d.
Parsnips, per doz. . .	6d. , 9d.
Beet, per doz.	1s. , 1s. 6d.
Potatoes, per cwt. . .	3s. , 6s.
Turnips, per bunch . .	2d. , 3d.
Onions, young, per	—
bunch	1d. , 2d.
Leeks, per bunch . . .	2d. , 3d.
Garlic, per lb.	6d. , 8d.
Shallots, per lb. . . .	4d. , 6d.
Horseradish, per	—
bundle	1s. 6d. , 2s. 6d.

Lettuce, Cos, per	—
score	6d. , 1s. 6d.
" Cabbage	6d. , 8d.
Endive, per score . .	1s. , 1s. 6d.
Celery, per bunch . . .	8d. , 1s.
Radishes, Turnip, per	—
dozen bunches . . .	1s. , 1s. 6d.
Water Cresses, per	—
dozen bunches . . .	6d. , 9d.
Small Salad, per	—
punnet	2d. , 3d.
Artichokes, each . . .	3d. , 6d.
Asparagus, per bundle	—
Sea-kale, per punnet	—
Rhubarb, per bundle	—
Cucumbers, each . . .	3d. , 8d.
Vegetable Marrow,	—
per dozen	6d. , 1s.
Tomatoes, per punnet	1s. , 2s. 6d.
Mushrooms, per pottle	1s. 6d. , 2s.

HERBS.

Basil, per bunch . . .	4d. to 6d.
Marjoram, per bunch	6d. , 9d.
Fennel, per bunch . .	2d. , 3d.
Savory, per bunch . .	2d. , 3d.
Thyme, per bunch . . .	2d. , 3d.
Parsley, per bunch . .	2d. , 3d.
Mint, per bunch . . .	2d. , 4d.

GRAIN AND SEED.

FRIDAY, Dec. 7.—The attendance this morning at market is limited. Since Monday there have been moderate arrivals. Wheat attracts limited attention, and the sales of Foreign this week are few. The English left over from Monday was all sold at that day's rates. Barley quiet. The dealers buy Oats with great caution, and prices are against the seller. All other Grain finds a quiet retail trade at a steady currency. Flour quite as dear.

WHEAT.

Kent and Essex, red,	—
per qr.	83s. to 85s.
Ditto, white	82s. , 92s.
Norfolk and Suffolk .	78s. , 80s.
Dantzic	92s. , 96s.
Rostock	81s. , 92s.
Odessa	73s. , 76s.
American	92s. , 96s.

BARLEY.

Malting	45s. to 49s.
Grinding and Distil-	—
ling	41s. , 43s.
Chevalier	45s. , 49s.

OATS.

Scotch, feed	34s. to 36s.
English	26s. , 27s.
Irish	30s. , 32s.
Dutch Broo	29s. , 30s.
Danish	30s. , 32s.
Russian	26s. , 29s.

BEANS.

Harrow	52s. to 56s.
Pigeon	54s. , 56s.
Tick	50s. , 52s.

PEAS.

Boiling, per qr.	53s. to 56s.
Common	43s. , 45s.
Grey	48s. , 50s.
Maple	48s. , 50s.

SEEDS.

Turnip, White, per	—
bushel	—
Swede	—
Rape	84s. , 86s.
Linseed, sowing, qr. .	80s. , 84s.
" crushing . . .	70s. , 72s.
Clover, English, redcwt	60s. , 68s.
" Foreign do. .	52s. , 57s.
" White	68s. , 73s.
Trefoil	28s. , 32s.
Rye, per qr.	52s. , 54s.
Tares	46s. , 52s.
Winter, bushel . . .	8s. , 9s.
Canary, per qr.	64s. , 72s.
Hemp	54s. , 57s.

Linseed Cake, per

ton	£11 to £12 10s.
Rape Cake	£6 10s. , £6 15s.
Indian Corn	47s. , 50s.

HOPS.

BOROUGH MARKET, MONDAY, DEC. 3.—For all Hops of good colour and quality the demand continues as good as during the past week, but in other descriptions there is not much trade. Mid. and East Kents, 70s. 100s. to 120s.; Weald of Kents, 65s. 80s. to 95s.; Sussex Pockets, 60s. 75s. to 90s.

FRIDAY, DEC. 7.—The trade for this period of the year continues tolerably good, especially for samples with colour and quality, for which the rates of last week are fully supported. In other descriptions there is scarcely anything doing.

HAY AND STRAW.

Clover, 1st cut per	—
load	110s. to 140s.
Ditto, 2nd cut	90s. , 130s.
Meadow Hay	90s. , 130s.
Rowan	80s. , 90s.
Straw, flail	30s. , 36s.
Ditto, machine	28s. , 30s.

POTATO.

SOUTHWARK WATERSIDE.—DEC. 3.—We cannot yet note any sensible improvement in the demand as the stocks on hand are heavy, and until the market is somewhat clear of the damaged and inferior qualities we must expect heavy sales. We regret to observe that some recent arrivals of Regents, in bulk, are in very bad condition. The principal inquiry is for the best kinds. The weather is now cold, with sharp frost. Kent and Essex Regents, 85s. to 90s.; ditto Shaws, 75s. to 80s.; York Regents, 100s. to 105s.; Lincolnshire Regents, 90s. to 95s.; Wisbeach and Cambridge Regents, 90s. to 95s.; Bedford Regents, 100s. to 105s.; ditto Shaws, 80s. to 85s.; Norfolk Regents, 85s. to 90s.; ditto Whites, 80s.; Scotch Regents (East Lothian), 80s. to 85s.; ditto (Red Mould), 95s. to 100s.; ditto (Perth and Fife), 75s. to 90s.; ditto (North Country), 75s.; Orkney Reds (East Lothian, nominal), 90s. to 95s.;

ditto ditto (Red Mould, nominal), 95s.; Scotch Cups (Perth and Fife, nominal), 75s. to 80s.; ditto (North Country, nominal), 65s. to 70s.; Irish Kemps and Clusters, 70s. to 80s.; ditto White Rocks, 80s.; ditto common Whites, 80s. per ton.

MEAT.

Beef, inferior, per	—
8lbs.	3s. 4d. to 3s. 8d.
Do. middling	3s. 10d. to 4s.
Do. prime	4s. 2d. to 4s. 4d.
Mutton, inferior 3s. 4d. to 3s. 8d.	
Mutton, middling 3s. 10d. to 4s. 4d.	
Do. prime	4s. 6d. to 4s. 10d.
Veal	3s. 10d. to 4s. 10d.
Pork, large	3s. 8d. to 4s.
Ditto, small	4s. 4d. to 5s. 4d.

POULTRY.

Senders are now hanging back for the Christmas markets, and a slight increase in price is the consequence. There is not any improvement in the trade during the past week.

Large Fowls	5s. 6d. to 6s. each.
Smaller do.	3s. 6d. to 4s. ,
Chicken	2s. to 3s. ,
Geese	5s. 6d. to 6s. 6d. ,
Ducks	2s. 6d. to 2s. 9d. ,
Pheasants	3s. to 3s. 6d. ,
Partridges	2s. 6d. ,
Grouse	2s. to 2s. 6d. ,
Hares	3s. to 3s. 3d. ,
Wild Duck	2s. to 2s. 6d. ,
Teal	9d. to 10d. each.
Woodcock	3s. to 3s. 6d. ,
Snipe	1s. 3d. to 1s. 6d. ,
Plover	9d. to 10d. ,
Cock Turkeys	11s. to 14s. ,
Hen Ditto	6s. 6d. to 7s. 6d. ,
Pigeons	10d. to 1s. ,
Rabbits	1s. 4d. to 1s. 5d. ,
Wild do.	10d. to 1s. ,

PROVISIONS.

BUTTER.—Cwt.	CHEESE.—Cwt.
Dorset, fine	104s. to 108s.
Do. middling	90s. , 96s.
Fresh, per doz. lbs. .	12s. , 13s.
Friesland	108s. , 112s.
Kiel	94s. , 98s.
Carlow	102s. , 106s.
Waterford	98s. , 102s.
Cork	98s. , 102s.
Limerick	100s. , 102s.
Sligo	94s. , 102s.
Cheshire, fine	74s. to 90s.
Gloucestershire, dble.	70s. , 76s.
Ditto, single	60s. , 74s.
Somerset	70s. , 76s.
Wilt, loaf	68s. , 78s.
Ditto, double	72s. , 78s.
Ditto, thin	54s. , 64s.
Ditto, pines	72s. , —
Berkeley, thin	62s. , 66s.

BACON.—Cwt.	HAMS.—Cwt.
Wiltshire, dried . . .	80s. to 90s.
Waterford	74s. , 76s.
York, new	80s. to 90s.
Westmoreland	76s. , 86s.
Irish	74s. , 84s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11½d, the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.
Ditto Tegs and	—
Ewes	1s. 1d. to 1s. 2d.
Half-bred Hog-	—
gets	1s. 3d. to 1s. 3½d.
Do. Wethers	1s. to 1s. 2d.
Kent fleeces	1s. 1d. , 1s. 2d.
Leicester fleeces . . .	1s. , 1s. 1½d.
Long, heavy do.	11d. to 1s.
Combing skins	10½d. to 1s. 1d.
Flannel wool	1s. 1d. to 1s. 2½d.
Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

RABBITS BARKING TREES (*An Old Subscriber*).—To prevent this, the best application, because not injurious to the trees, is a mixture of night-soil and urine, just thin enough to be applied with a brush. We think rabbits do not attack the bark of Cherry and Plum trees as they do that of the Pear and Apple.

DRAWING-ROOM FOUNTAINS (*S. D., Guernsey*).—You will have seen an answer to your query.

BRICK ARNOTT'S STOVE (*W. G. N.*).—You will find a full description, with drawings, in Mr. Rivers's pamphlet, "The Orchard-house."

WINTERING BEES IN A DRY CELLAR.—*A Bee-keeper* will be obliged by information upon this subject from any one who has tried such treatment.

MUSHROOM-BED NOT PRODUCTIVE (*A. O. F.*).—Your description shows that it is too cold. Put a thick lining of hot fermenting dung round it.

SEAWEEDS FOR SMOKING HAMS.—*An Old Subscriber* would be obliged by any information on this subject. If any one has succeeded in employing it, how was it used?

GESE AT THE EAST LANCASHIRE SHOW.—"I perceive that your 'CORRESPONDENT' has not handed you a correct statement. His criticism on the first prize pen of Geese is, I presume, more in the spirit of spleen than in respect for truth, and I deem it a duty to myself to correct such a misrepresentation. Your writer's sarcastic expression, I imagine, is by no means complimentary to the acknowledged capabilities of those gentlemen who awarded the prizes on that occasion. I also beg to state that the first prize, Class 8, was given to Mrs. D. Henderson, Shuttleworth, and not the gentleman named in your report."

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WEEKLY CALENDAR.

D M	D W	DECEMBER 18—24, 1855.	WEATHER NEAR LONDON IN 1853.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermio.	Wind.	Rain in Inches.						
18	TU	Engis humeralis.	29.464—29.002	39—29	N.	14	4 a 8	49 a 3	1 56	9	3 18	352
19	W	EMBER WEEK.	29.730—29.701	44—33	W.	36	5	50	3 20	10	2 49	353
20	TH	Sun's declination, 23° 27' s.	29.955—29.466	44—24	N.	08	5	50	4 44	11	2 19	354
21	F	St. THOMAS.	30.125—29.953	51—39	S.W.	12	6	51	6 8	12	1 49	355
22	S	Engis ferruginea.	29.882—29.829	54—28	S.W.	06	7	51	7 28	13	1 19	356
23	SUN	4 SUNDAY IN ADVENT.	29.895—29.778	47—26	S.W.	05	7	52	rises.	☺	0 46	357
24	M	Chaffinches flock.	29.879—29.768	52—40	S.W.	06	7	52	4 a 28	15	0 19	358

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 44.3°, and 33.8°, respectively. The greatest heat, 57°, occurred on the 23rd, in 1839; and the lowest cold, 12°, on the 19th, in 1840. During the period 108 days were fine, and on 88 rain fell.

Now that the PLANTING OF FRUIT-TREES is proceeding, and all who are engaged in rearing orchards and planting gardens are making the most of this favourable season, we would tender a few words of advice as to one particular connected with the operation which is much too frequently neglected. When such a work is set about, great care is manifested in the selection of the varieties: authorities are consulted, and the most experienced nurserymen are appealed to, to secure such a collection of varieties as may, in future years, furnish a source of pleasure and of profit to the planters. The soil is chosen with all due regard to situation, drainage, and necessary preparation; and the work of planting is completed by the careful insertion of judiciously-selected and correctly-named fruit-trees. In the selection great importance has been attached to the nomenclature. It is a subject to which some nurserymen very properly give the greatest attention; but how frequently it happens, that no sooner are the trees in the ground, and the owner feels that they are in a fair way of well-doing, that the names are forgotten, and the label by which each was distinguished is left to bleach, and shrivel, and decay. Years pass on, and the trees come into full bearing; but their nomenclature and their value are alike unknown.

We have been induced to make these remarks from a circumstance that came to our knowledge within the last week. A large parcel of Pears was purchased in Covent Garden Market, at a price which would have been considered low for fruit of a nondescript and inferior description. Had the grower known the name and value of the variety, his would have been the gain; but the purchaser, who knew what the fruit was, immediately recognised them as excellent specimens of *Nelis d'Hiver*, for which he could, when ripe, without any difficulty find customers at 3s. and 4s. a-dozen.

Some three or four years ago we strongly urged an extensive cultivation of fruit-trees of the best varieties, and particularly of those which came into use after the autumn sorts were passed; and we took some pains to advise our readers of the names of such as would command a high price in our principal markets; among these was this very *Nelis d'Hiver*; but if any of those who acted on our advice have made plantations of the varieties which we then recommended, and have since lost their names, theirs will be the loss when they send their produce to market. We would, therefore, strongly urge all fruit growers to be careful of the nomenclature of the varie-

ties they grow. It is a subject attended with very little trouble. A wooden label, with a number notched upon it; a strip of zinc, with the name written upon it; a piece of lead, with a number stamped upon it, and the name entered in a book with a corresponding number; any one of these modes may suffice for half a life-time to satisfy curiosity or to furnish information; and however small the collection may be, it will always be found a source of interest, rather to know or be able to tell, what description of fruit one is growing. That there is an interest to be found in knowing the names of fruits we have ample evidence, from the numerous applications which at this season of the year are daily made to us on the subject; and it is, therefore, on that account that we now advise planters to seize the present opportunity of securing that which, if once lost, may cost them much trouble to regain.

THE Meeting of the ENTOMOLOGICAL SOCIETY was held on the 3rd of December, with John Curtis, Esq., F.L.S., &c., the President, in the chair.

We were happy to perceive that a considerable number of new members were ballotted for and elected. There was also a considerable list of donations to the library, which the Society is desirous of making as complete as possible.

The chief donations on the present occasion were from the Entomological Society of Stettin, Professor Leuckhart, the Society of Arts, &c.

An article on the *British Ink Gall*, by an anonymous correspondent, was read, containing an account of the great injury caused by this new pest in young Oak plantations.

A description was communicated, by Mr. Newman, of a curious species of *Thrips*, collected in India by Captain Hamilton.

Mr. Edwin Shepherd exhibited a fine pair of the *Trochilium scoliaeforme*, a species new to this country, which had been captured during the past summer by Mr. Ashworth, at Bryn Hyfryd, near Llangollen. The species is of large size, and is distinguished by two yellow belts across the abdomen, and has a tuft of red and black scales at the tail. The male has the antennæ entirely black, but those of the female have a broad white band near the tip.

Mr. Curtis read notes, accompanied by beautiful drawings of the following insects, *Hygrotyus bisulcatus*, a

small Water Beetle, unique in his collection, and described in the Annals of Natural History. *Apion Curtisii*, a species also long unique in his collection, from which it was described by Mr. Kirby, in his manuscripts. Mr. S. Stevens, had, however, recently found specimens near Arundel. A remarkable variety of *Tanessa urtica*, taken at Hampstead, and it was remarked that that neighbourhood had produced many curious varieties of this species. A remarkable variety of a Sphinx larva, drawn by Mr. Curtis, when he was very young, and which was regarded as that of *Sphinx Celerio*. Also some notes on the genus *Conops*.

Mr. Newman communicated some notes on the habits of the *Prawn*, as observed in Mr. Warrington's marine Vivarium, especially with reference to the functions of the antennæ, which, contrary to the views of Newport, Spence, Bate, and other observers, Mr. Newman considered to be indiscriminately used as organs of smell, the Prawns following in the track of their food, when moved about, like a pack of fox hounds with the scent breast high.

Mr. Newman also described a considerable number of minute Australian *Lepidoptera*, collected in the province of Victoria, by Mr. Oxley, and which was remarkable for their great similarity, both in structure and colour, with those of our own country. A new genus was also established for a curious species, with the hind-wings extending outwards like the Lappet Moth, and which was named *Boydia hispidella*, in honour of Mr. Boyd, an assiduous collector of minute British Moths.

Mr. Stainton read a paper, with the title—"On the spirit with which scientific books should be read and studied." Mr. Stainton's chief argument being, that as all science is progressive, all scientific work must necessarily be imperfect, and stand a chance of being superseded by fresh discoveries, and, hence, that too much should not be expected from an author whose short comings ought not to be judged with severity.

Mr. S. Stevens exhibited a box of beautiful large *Lepidoptera*, sent from Natal by Mr. Plant, accompanied by drawings of the various formations of many of the same interesting species. He also read some notes by the same gentleman, on the habits of the *Paussidae*, a family of small, singular Beetles, which are captured by the Ants, and retained forcibly as prisoners in their nests by the Ants.

ROOT-PRUNING, PEACH-PASSAGE, PRUNING OF PYRAMIDAL PEARS, QUINCE STOCKS, &c.

THE above contains the essence of a string of inquiries received a few days since; and as the topics are of a general character, and may concern many, it may be well, perhaps, to examine them, which I will endeavour to do in a consecutive way. The writer, "M. P.," appears to have somewhat extensive gardens, and seems to possess a great amount of earnestness as to gardening on principle.

The first question turns upon this; whether trellis-trained Peaches submit well to root-pruning. The writer here confounds, in an odd way, the two very distinct processes of frequently mutilating surface-roots by spade

operations—done at random—and that special cutting of the points of the roots, which we term root-pruning, and which is intended to lower the habit of the tree in a temporary way, without long deranging its system as to reciprocity between root and branch; and more still, without depriving the roots of the ameliorating influences of atmospheric warmth. Our applicant is not by any means the only person who has thus mistaken the two points; and since the question is thus raised, let us explain the thing practically.

I have a very capital Peach-wall; I have ever paid great attention to the roots of the trees thereon; not by meddling with them, but chiefly by letting them alone. These fine trees have for years been surface-dressed, and that surface—about five feet from the wall—has never yet been dug; but with all this they have been root-pruned at their extremities annually. Let me then assure "M. P." that root-pruning, whether in-doors or out, if performed on principles with which the operator is fully acquainted, is eligible to all sorts of trees, provided they are too gross, and a fructiferous or blossoming habit is sought to be produced.

The next affair is a "Peach-Passage."—This seems a coined phrase; but I imagine I can fancy what our correspondent means. He says, span-roofed, and rather more than ten feet wide, with an eight feet trellis, and a path two feet, having a border right and left of about four feet. What a pity it is that our readers who build houses with span-roofs should not make a point, at all times, of informing us whether such houses have a north and south facing, or one east and west. If I were an editor, I should really be tempted to coax correspondents to a confession in this respect. I would here ask our correspondent why he did not endeavour to carry the border through beneath the middle walk? There could be no real difficulty in permitting the two borders to unite below. As to a four feet border on each side, that will produce fine trees if the space they have to fill individually is not too great, and if the soil be of excellent character. But in such cases it will be well, indeed, to have arches in the side walls, and a prepared border outside, in order that the roots may find pasture when needed. Certainly—in answer to another inquiry concerning this part of the affair—the roots may safely be confined to the four feet border, if no more is to be had; but then the trees should not occupy much more than an area of six feet square. As to the proper period for root-pruning, I have long been fully persuaded that autumn is the best period, at the time when about three parts of the foliage is fallen; in other words, I would root-prune at the best planting period.

Our next question concerns *Pyramidal Pears*; what to do with the remains of the *summers' snags*. For my part, I am no advocate of these same snags, and, indeed, my system requires them not. I tie down the young wood that is required to remain, and cut the other entirely away. Those who will grow Pears in the pyramidal form, however, must seriously contemplate these "snags," as they will ever be haunted by them. Persons well versed in the art of pruning can, generally, in a moment perceive the difference between a profitable and unprofitable snag; that is to say, those in which there is a prospect of future blossom-buds, and those in which there is little or none. My advice is, that in the earlier stages of the Pear, or during the first three years after planting, many of these snags should be left in order to increase the chances of the true development of real spurs, or, what we may term, spawn-eyed spurs; that is to say, those which will, under proper regulations, one day become spurs. But I would here remind our readers, that what are called incipient blossom-buds are easily convertible at a given period, and under particular circumstances, into wood-buds, so that it is a root as well as a bud question.

The pruner, however, must be guided in the main by the character of the wood of his trees; for not only do kinds differ exceedingly, but the same kind does not always possess the same habit. If the tree is disposed to produce natural blossom-spurs, what good gardener would choose to retain one "snag," if hopes of the true spur were manifest? My plan, then, at all times, is to get rid of what they call snags as speedily as I can; a very small plea for their absence seems to invent an excuse for "war to the knife." Everybody knows, or should know, that taking the average habit of Pears in any garden, some three-fourths of these snags deceive the hand that fondled them; they "run to wood," to use a gardening phrase.

The last inquiry of "M. P." is, "Are Quince Stocks really preferable to Pear? Soil, deep hazel loam, stiffening below into brick earth, and ultimately lying on mere red sand-stone; space no object." Here is a curious question to answer. Doctors differ; why not gardeners? But here I am reminded of an old couplet, which may do for a preface to the remarks I would respectfully offer concerning this ticklish affair—

"The difference is as great between
The optics seeing as the objects seen;"

so that it is hard to say who should speak loudest in the matter. Mr. Rivers is too high an authority not to be listened to; Mon. De Jonghe, too, seems to do the thing well in French; then we have some noted men from the Channel Islands; also lots of good English gardeners who have their favourites; and lastly, let me be "one in the ring," for I have long kept an eye on the subject.

This is, indeed, a question which will, probably, never be finally settled in the abstract. My advice is; first, ascertain what kinds *will* succeed on the Quince, and what *will not*; next, ascertain if your soil will grow well the Quince tree itself; and finally, make up your mind as to whether you are willing to sacrifice amount of produce and longevity in the tree, to speedy bearing, a dwarf habit, and, consequently, economy of space.

Gentlemen who have invested hundreds—perhaps thousands—in propagation by the Quince are, certainly, not the very best evidence in this question; it is too much for human nature to expect they will at once relinquish long-cherished opinions and bags of gold at one fell swoop. If the latter remarks have no weight in them, they will, by the ordinary laws of gravitation, evaporate unnoticed.

R. ERRINGTON.

POMPONE CHRYSANTHEMUMS.

On Sunday morning, December 9th inst., the glass indicated nine degrees of frost, and that much has not affected my buds of Pompones Chrysanthemums in the slightest degree; and *Daphne* is now nearly a scarlet flower, after being open full six weeks. *Elise Miellez* is also much redder and more beautiful than it was a month ago; but *Lais* and *Atropos* (not *Atropus*) are still as dark brown as they were the first day they opened. *Mignonette*, *Ninon*, *Colibri*, *Fenella*, *Fiancée*, *Piquillo*, *Giralde*, *Madame Jules*, *Graziella*, *Jonas*, and a few others, are now, 11th December, just in their prime; and *Le Nain Bebe*, *President*, *Surprise*, *La Vogue*, *Autumna*, *Drine Drine*, *Cedo Nulli*, *Louis Piton*, are a good deal faded, and must be cut down in another week. *Hendersonii* was cut in the last week in November. Here, then, we have three broad facts distinctly proved already; we have an early race, a middle and a late race, among Pompones; and any amount of November fogs, more than the usual average of rain, and ten degrees of frost, will not spoil these flowers; so that, for nine years out of ten, it is quite possible to keep any number of flower-beds quite gay with them till the be-

ginning or middle of December. Possibly there are some later kinds than those I possess.

Toison d'or has opened beautifully since my last letter, and I see I have done it great injustice; it is a larger flower than *Sacramento*, fully as good for a mass; and the individual flowers are a little browned in the centre at first; the plant is more dwarf, and it comes in just as *Sacramento* is going off. Now, what I want to teach from all this is, that we should take advantage of these "properties," as a florist would say, and turn them to account for supplying the various uses for which Pompones are or can be used. First come, first served, applies here with considerable force. The first or earliest kinds ought, certainly, to be propagated before the middle race, and the latter to be divided or struck from cuttings a full month before the very late kinds. I made up my mind for this division as far back as the middle of last September, and I am now so confirmed in the opinion, that it is a fixed principle with me. As far as I can yet see my way, *Hendersonii*, and all that are as early as it—these are coming—should be on their own roots, either by cuttings or dividing, before April is out; and the earlier in April, I think, the better, and they should not be stopped after the first week in July. As there was no special date that I could rely on for the last time of stopping Pompones, I went over every one I had, and stopped the whole of them on the last Saturday in July; by doing that my *Hendersonii* did not come into flower until the 10th of October, just ten days or a fortnight later than I shall have it next year, if I live so long. All my transactions with the family are dated, in a book, as carefully as if their golden, and silvery, and coppery petals were the true "currency;" and I shall keep the account "open" to the end of the "chapter."

According to my limited experience, all those Pompones which come in from the 15th or 20th of October, to the middle of November, should be on their own roots, and ready to shift for themselves, by the 20th of May, and the very late kinds the same, only, by Midsummer-day; the latter to be stopped for the last time any day in the last week in July; and the former, or middle section, not later than the 15th of July; that is to say, when we shall know which are the early, the middle, and the latest kinds; for I have only indicated that we may reasonably expect the three sections, or be able to form the middle and late sections by particular management,—we are certain of an earlier race of them; and the following is the manner by which I obtained an insight into the fact.

On the 8th and 9th of last June, I got in a large collection of thirty-two kinds of Pompones, which were grown in No. 16-pots the previous autumn; the pots were kept in a cold frame all last winter; and by the 8th of June, the plants, or suckers, were grown to from nine to twenty inches high. I took short cuttings of the tops of the strongest shoots of all of them that day, and then cut the whole of the shoots down as close to the surface of the pots as I could reach. After that, I shook off all the soil from the balls, and divided each ball into four, six, or eight pieces, according to the size of each ball; and, lastly, I cut back the roots to the very bottom of the old stumps. To handle the pieces now, was like handling little patches of Double Daisies; there were more than 150 patches in all; but a friend, a very good gardener, who came for the day to help me,—took his share, and was to report, from time to time, on his different way of treating his plants, so as to have two strings to the bow. He struck his part of the cuttings in heat, and my cuttings were struck in 60-pots, placed inside a cold box with a flat top of loose panes of glass, after the manner of a Waltonian case; and I had a share of those which were struck in heat, to plant out with my own, to see the difference, if any; but there was no appreciable difference from the two systems of strik-

ing these cuttings. Towards the end of the last week in June, I received cuttings of twelve of the best old kinds, such as *Autumna*, *La Fogue*, *Drine Drine*, *Ninon*, *Colibri*, *Jonas*, *Mignonette*, *Solfaterre*, and so forth; and to the end of July, I made a few cuttings of most of the first lot every fifteen days, noting the date, the time they were planted out, and that of coming into bloom; also took notes of progress from my partner; and, since the middle of October, I had much assistance from other friends, who undertook to bloom part of the sample in various ways, and in different kinds of houses, also, to test the usefulness of cut flowers in rooms of various degrees of heat and light. These experiments were carried on with a view to publication on the part of all of us, so that I am certain of my reports, as far as they go; but there is a great field before us yet, before we are masters of the subject.

We must come down upon Mr. Salter, and all the rest of them in the spring,—get in whole collections, and treat them over next year; then make fresh selections for the conservatory, for cut blooms, and, above all, for the flower-beds. In order to help us, I have made the following tests of the best and second-best kinds, out of all the sections from Mr. Salter's collection. Meantime, I should be glad to receive any reports about them from our own readers, or any suggestions as to how the experiments for next year should be conducted. For my own part, I can see no objection to having them from cuttings early in the spring; no matter how early, if there is convenience; but, in all cases, I would cut down the early kinds in April, the middle kinds in May, and the late ones in June, if they were intended for a succession in the flower-beds; after cutting down and dividing my own stock, and planting them out in single rows, thirty inches apart.

In the following list of older kinds, the very best are marked with a star, and the second best are without marks; but some of the kinds may have to exchange places after another season's trial. The meaning of, and the way to pronounce, some of the foreign names are also given, as I am constantly asked for that kind of information; but the exact tints of the flowers cannot be given by any one who has not grown them for a season both in and out of-doors:—

ADONIS (A beautiful youth in Pagan history).—A fine rosy and white flower.

AGE D'OR (Golden age).—A fine large yellow.

AMALTHEE (Amalthæa, Jupiter's nurse).—A large lilac flower with a bronze tint.

ADMIRAL DURVILLE.—A brassy light yellow.

ARGENTUM (Silvery).—This is the purest white flower among *Pompones*.

ASMODIE (Asmodeus, one of the evil spirits).—A fiery-red-orange, and very conspicuous.

ATTALA.—A large lilac-blush flower.

AUORE BOREALE.—A large dark orange.

AUTUMNA.—The best of the Spanish browns.

BAYARDIERE (Arabian dancing girls).—There is a precedent, in Botany, for this name. *Mantisia saltatoria*, or dancing girls. The flower is of a new colour—a silvery-rose bronzed.

BEAUTE TOULOUSAIN.—A small French-white, or rosy-purple and white. A dwarf kind.

**BERNARD DE RENNES*.—A fine, large, yellowish-buff flower.

**BERROL*.—Another fine thing. A golden-yellow flower, and one of the best for a pot specimen, being a very profuse bloomer.

BERTHIE.—A rather large flower, pale lilac.

**BIJOU DE L'HORTICULTURE*.—A creamy-white flower; large and late.

**BOB*.—There were two kinds by this name in 1854, but, after comparing them, I see no difference. It is a fine dark brown.

BOULE ROSE (Rose ball).—A nice little rosy-lilac.

BOUQUET DE LA REINE (The Queen's nosegay).—A fine white, tipped with rose, and a dwarf plant.

**BRILLIANT*.—One of the best, inclined to crimson-scarlet.

CHEDEVILLE.—Redish-orange, inclined to crimson.

**CLEOBIS* (A name in Pagan history).—This is a fine mixture of rose-carmine and white.

**COLIBRI*.—This name is used in several branches of natural history, as for a section of humming birds and of snakes; but the derivation is disputed; the meaning is the same as "shot silk." The flower changes from rich purple to brown on the edges, and from deep fiery-orange to nankeen. It is an excellent late kind.

**COMTE VIGIER*.—A large mottled pale salmon flower. A fine pot plant.

**DOCTOR DUREL*.—Carmine-red. A fine flower.

**DRINE DRINE* (Dryne Dreen, a German drinking song).—One of the best clear yellows.

**ETOILE DE VENUS* (The star of Venus).—Another fine yellow and orange.

FENELLA (One of Sir Walter Scott's female characters).—This little lady darkens the window of my office while I write this, with some 490 fringed flowers full open, on a small plant. It is a distinct kind of yellow from all the rest, and one of the latest out-of-doors.

**FOLICHONNE* (A clown).—Some spell this *Policbonne*, which is wrong. This is a merry-looking flower, white and pencilled yellow.

HECTOR.—A fine yellow, and bronze.

HELENE.—Rosy-violet.

HENDERSONII.—The earliest yellow of the old kinds.

JONAS.—Bronzy-yellow, tipped with brown.

LA FIANCEE (The Bride).—In the way of *Argentum*.

**LA RADIEUSE* (The Radiant).—A fine flower, violet, and white.

LA ROUSE (The Russety).—A fine orange-red.

**LA VOGUE* (The Fashion).—One of the very best golden-yellow, tipped dark-brown in the centre, in the open air.

**LA MOINE* (The Monk).—Cinnamon.

LE NAIN BEBE (The little baby).—Rosy-lilac; an early, sweet-scented kind; very dwarf.

**LOUIS PITON*.—A large, early, silvery-blush flower; the best light to stand the weather. Mine opened on the 15th October, and is not over yet, 11th December.

**MADAME DE VATRY*.—A fine rosy-lilac and white.

**MADAME DE MERLIEUX*.—A large golden-yellow.

**MADAME PICHAUD*.—White and crimson.

**MADAME ROUSSELON*.—A fine flower, white, tipped rose or cherry.

**MARCEAU* (A family name).—Rose, bordered with white.

**MARABOUT* (Marabout feathers).—A pure white, large top-knot-like flower, fringed like Marabout feathers.

**NELLY*.—Sulphur and White. There is a single worthless kind also called Nelly.

**PERLE DU PRADO* (The Pearl of the Prado, or public promenade, at Madrid).—An exquisite colour, rose and peach.

PIQUILLO.—A dwarf plant, with rosy flowers.

**PLUI D'OR* (Golden-Rain).—Canary-yellow. A very dwarf, compact plant.

**PRESIDENT DECAISNE*.—One of the very best out-of-doors. A purplish-lilac.

PRINCESSE MATHILDE.—Sulphur and white.

**REQUIQUI* (Rekye-kee, the name of a French clown).—A very fine pot-plant, with large, violet-plum-coloured flowers.

ROSE POMPONE.—Silvery-lilac, a new colour.

**SURPRISE*.—An early kind; white, tipped with lilac. Soon turns white in-doors, but keeps the lilacy tint out-of-doors to the last.

TOISON D'OR (Golden Fleece).—A large, late, golden-yellow flower. A dwarf, stout plant

***TRIOMPHE**.—A fine, large, golden flower; and a good pot-plant.

TURRIS EBURNEA (The ivory tower).—A fine white flower.

URANIE (The planet Uranus).—A fine, large amaranth, pencilled with white.

VESTA (Another planet).—A fine, pure white flower.

***ZEBRA**.—A mottled lilac-and-white flower.

ANEMONE-FLOWERED POMPONES.

***ARIANE** (Arion, a Greek poet).—Amaranth and gold centre. A fine, bold flower.

***CEDO NULLI** (I yield to none).—A fine, white flower, with brown tops; sometimes quite full in the centre.

CYBELE (Sybil—the witch of Endor was a Sybil).—This is almost a single-flower, amaranth, with a golden-eye, and very pretty for variety.

***JUANITA**.—Blush and yellow eye; very conspicuous.

LAIS.—A large, dark flower; useful to mix with blush and white flowers out-of-doors.

***MARGUERITE DE VALOIS** (The Queen of Henry the Fourth of France).—White, with a yellow centre.

****MARGUERITE DE WILDEMER**.—The best in this section; sulphur and gold.

***REINE DES ANEMONES** (Queen of the Anemones).—A fine, white flower.

The following are quite new, having only been "let out" last spring for the first time.

***AIGLE D'OR** (Golden Eagle).—Canary-yellow.

***ALEXANDRE PELE**.—A bronzed-red flower. We have heard of M. Pele's Pompones from Mr. Keir, but not the names of four particularly good kinds he had in 1854.

***AUREOLE**.—A fine crimson-scarlet, or the nearest shade that way.

***CREOLE**.—A dark red salmon.

***DURUFLET**.—An excellent kind for a pot, with rosy-violet flowers.

***MRS. WESTWOOD**.—A silvery-black; a seedling of this season only.

***MR. DALE**.—Brassy and Crome-yellow. This is also a seedling of this season.

***QUEEN OF LILLIPUT**.—A small, rosy-blush flower.

REGULUS.—Cinnamon, and of the Anemone section.

SAINTE THAIS.—Chesnut-red, and a distinct kind.

****TROPHEE**.—The double-star denotes one of the very best of them—a fine rose.

***VICOMTE DE CAUMONT**.—A fine mixed colour of red, brown, and yellow.

D. BEATON.

BOUVARDIA.

This is a beautiful family of semi-herbaceous, semi-shrubby plants, with tubular flowers, and growing from one-and-a-half to three and more feet in height. All of them are very beautiful, and besides being well fitted for ornamenting the greenhouse, are also hardy enough to suit the flower-bed in summer, or to bloom in a warm spot, or at the base of a south or west conservative wall. For the first, or common bedding, one of the oldest, *triphylla*, is very useful, and so are its varieties, *glabra*, *pubescens*, and more especially *splendens*, the latter being a brighter scarlet than the others mentioned; *coccinea* is also very good, and, perhaps, the best of all for this purpose is *Houteana*, with very fine scarlet flowers; *longiflora*, a white flowered species, has also been tried, with fair success, for a bed by itself and mixed. Some of the other principal species are *angustifolia*, with narrow leaves and red flowers; *flava*, with yellow flowers; *strigillosa*, yellow and bristled; and *versicolor*, red and a sort of mottled. With the exception of *triphylla* and its varieties, I would advise

a warm place for all the others when tried out-of-doors, and if sandy-peat is mixed with the loam they will bloom all the better. All of them are good greenhouse plants in summer.

Propagation.—All, and especially the most woody, are easily propagated by small side-shoots, taken off in early spring, and inserted round the sides of a pot in sand, and placed under a bell-glass, in a mild, sweet bottom-heat. The easiest mode, however, is to divide the roots in spring, just as vegetation is commencing, into pieces of from half-an-inch to one inch in length; cover them slightly, but rather firmly after being placed in sandy-peat and loam, and plunge them then in a hot-bed, with a temperature of 70° to 75°. They will soon make their appearance, and must be treated to more air and exposure as they grow.

Preserving in Winter.—The last mode of propagating furnishes the key note to this. The more woody kinds may be kept much in the same way as a *Fuchsia* in a pot—rather, dryish, but not dry—and the stem, or stems, being pruned in, flowers will be more quickly produced than upon shoots made from the bottom the same season. This plan will secure the maximum of early bloom, with a minimum of foliage and luxuriance. Any place will do for keeping these plants, under a stage, or otherwise, where a temperature of from 35° to 40° in winter can be obtained. For dense, bushy plants, chiefly for the flower-garden, the plants will require similar winter treatment, and to be dryish rather than wet, and to have the stems cut down just as is generally done with beds of *Fuchsias* in the open air. I used to find, in their case, just as in the *Fuchsia*, that the old stems left, though they produced early flowers, were far inferior, ultimately, for massing, to those plants cut down and started afresh; the smaller shoots being thinned out to give room to the stronger. I have also tried to leave the roots of *triphylla* and *coccinea* in the ground, covered with ashes and moss, just as is done with the finer out-door *Fuchsias*, but I cannot say much of my success, and I would, therefore, advise the raising of such roots before frost, and either potting separately, or packing them in earth, in narrow wooden boxes, and placing them beyond the reach of frost for the winter.

Culture.—Propagation has been referred to. By the first or the middle of March, the plants will be moving, and may either be repotted, or one pot made into several, by division, if the stool is at all large. Sandy-loam and peat, with a little leaf-mould, will grow them well. A close atmosphere after potting will encourage growth, and if not planted out, a cool greenhouse, or a cold pit, will suit them admirably. A whiff of tobacco will be necessary, now-and-then, to clear the young shoots from Green-fly, and frequent slight syringings before the flowers begin to appear will keep them clean and healthy. For conservative walls, especially for covering the lower parts of them, the whole species and varieties would be useful. If planted out-of-doors before the middle of June, a protection of evergreen boughs will be necessary. If kept in-doors, plenty of air and plenty of water will be required during summer, until the days shorten in the autumn, when water should be gradually withheld, in order to ripen the base of the shoots especially. When planted out, they will keep as well if lifted before the cold, heavy rains common towards the end of October commence.

VERBENA VENOSA.

This is a fine, old, useful plant, which was next to forgotten until Mr. Beaton introduced it to notice, in unison with the old variegated Scarlet Geranium, for forming his celebrated shot-silk bed, than which I can testify few things are more beautiful. It is one of the very hardiest of the Verbenas, standing out in moderate

winters without any protection. Sometimes, however, the large, creeping, underground roots are destroyed when frost and extreme damp succeed each other. It is safest, therefore, to dig up the roots, and to pack them, in soil, in any place where they will be free from these extremes. Beautiful as it is when mixed with the old variegated Scarlet Geranium, it also makes a nice, compact, rosy-purple bed when planted alone, rising from twelve to eighteen inches in height, and from its firm habit and upright growth requiring neither pegging nor staking to keep it in order. Several inquiries have been made as to propagating and keeping, and hence these few remarks. Good seed sown in a hotbed, in March, pricked off, and grown on until May, will give nice flowering plants for the season. Cuttings may also be made in autumn the same as for other Verbenas. But the easiest and best method, where many plants are wanted, is to take the creeping, underground roots, and cover them over in sandy leaf-mould in the middle of March. They will soon present you with a forest of young shoots, and by dividing the old roots in pieces, you will have lots of young plants furnished with young roots at once, which may either be potted separately, or planted out in a bed, where they will receive no check, and be hardened off gradually until planting-out time in May. If there is any preference, I should choose this intermediate pricking-out instead of potting. I have frequently hardened them off in the beds in which they were started, divided, and planted out at once. If left in the beds out-of-doors during the winter, the beds should be covered with moss, or ashes, so as to throw off heavy rains, &c.

SALVIA PATENS.

I regret to find that many disappointments have occurred about this splendid plant. One correspondent says, that he kept the roots quite safe, packed in sand, for several years; and that every year they became more unsatisfactory, whether used for pots or the flower-garden. I have experienced the same thing myself. For compact, free flowering-plants in summer, young plants, raised from seed sown in a moderate hotbed in March, are sure to give satisfaction in-doors or out. Plants from tubers a year or two old will be much stronger. After that age, if taken up year after year, they are not to be so wholly depended on, as, frequently, a plant will go off without giving you any notice of its intention to do so. Many keep them good for years, by allowing them to stand in the ground all the winter, protected with old tan, ashes, &c. I have found, that though this plan does admirably well on light ground, the roots very often decay, more or less, on stiff, loamy soils. The best beds I have ever seen of this plant were at the Frythe, a beautiful new place, the residence of W. Wilshire, Esq., about a mile and a-quarter from the Welwyn station, on the Great Northern Railway. The flower-garden and terraces, though not extensive, have been specimens of good taste and first-rate management. Our old friend, Mr. Carter, though he has held the position of head-gardener for more than half a century, showed, that in his management he could be young and blooming as the best of us. These splendid *Salvia patens* beds have been in the same place for several years; having only, so far as I recollect, a covering of rough leaf-mould in winter, slightly forked in in the spring. The position was an elevated platform surface-soil; naturally a sandy loam, resting on an open gravel subsoil. The form of the beds were circular; the plants were fully four feet high in the centre, and sweeping the turf at the sides; and during summer, and on to the end of autumn, were a dense mass of the most beautiful blue. I should suppose that the blooms fell sometimes, as they do at other places, but during the times I saw them, it would have been difficult to see where they could have

come from. The place was well sheltered, being only directly open to the south. When flourishing in such style, I am aware of no blue to approach it in splendour.

SALVIA FULGENS VARIEGATA.

The differences between this variety and the common *fulgens* are, that the foliage is liberally blotched with white, sometimes approaching yellow; and that, if anything, it blooms a little later, and, perhaps, is not so strong growing. A correspondent lately complained, that though he succeeded in saving it out-of-doors in the ground last winter, by a covering of ashes, thatched with moss; and though he had vigorous growth in summer, that he got no flowers until mid and late autumn. When left in the ground, the plants should be taken up and replanted in May, which lessens luxuriance and predisposes to early blooming. Plants thus treated were in bloom in July. Instead of leaving them in the ground, which prevents the ground being dug in the winter, and requires considerable trouble in protecting them, it is better to take them up, after cutting the tops off, in November, and pack them closely in dryish earth in a shed, where, by means of a little litter in severe weather, much frost may be excluded. Such plants turned out in May, flower almost as early as cuttings taken in August, and keep growing all the winter, and require far less trouble. When so kept in a shed, or in a cold pit, they would be the better for an intermediate place in a border, with a little protection, before going into the open ground.

LARGE LOBELIAS.

Such as *fulgens*, *Marryatta*, *igneae*, *splendens*, &c., among the scarlets; and *arguta*, *heterophylla*, *pyramidalis*, and *syphilitica*, among the blues, are best kept in much the same manner, beneath a greenhouse stage, or in any shed, or root-house. They frequently stand the winter out-of-doors, but they are never to be depended on. It is always safest to take a part of them up by the beginning of November. A correspondent mentioned, the other week, how fine he grew them as single plants for the greenhouse; and few things are more splendid in summer. For this purpose, the following are the essentials. Keep the roots dryish and cool in winter, not often below 35°. In spring, say the beginning of March, place them in an average of 60°, with an increase of moisture. By the time the suckers fairly show several leaves above the surface, divide singly, and pot in small pots, in light, rich loam, heated, so as to give no check; plunge these pots again in a bottom-heat of about 70° to 75°, and shift on as fast as the plants require it; the great thing now being to encourage the production of good-sized leaves before the stem commences to rise much, and to avoid anything like steam or condensed moisture hurting the foliage, by leaving a little air constantly at the back. By June the plants should be gradually hardened, so as to stand in the greenhouse, and when the roots have filled an eight or a twelve-inch pot, a rich surfacing should be given, and manure-waterings freely applied. In flower-gardening purposes, several young plants or suckers may go together, as the same nicety is not required, and, besides, such strong, high stems would often be a disadvantage.

SWEET-SCENTED VERBENA (*Aloysia citrodora*).

This universal favourite, especially among the ladies, when used as a window plant, should be kept rather dry in winter, if it has ceased growing. Young plants with foliage on must be kept slowly growing. Older plants that have lost their leaves may be safely kept in any place, dark or light, where frost is excluded. It is becoming fashionable to plant old, stumpy plants among Roses in summer. These may be safely kept, when taken up, in a close shed, or beneath the stage in a cool

greenhouse. So great is the desire for the sweet foliage, that some wish to devote a bed for them alone; in this case, no mode is so good as cutting the plants down in autumn, covering with ashes or leaf-mould, then a good thickness of hay or moss, and thatching neatly with straw, or garden mats, to throw off the wet. These will throw up strong, vigorous shoots. R. FISH.

CULTURE OF ORCHIDS THAT WILL BEAR COOL TREATMENT.

(Continued from page 165.)

HEAT.—The species of Orchids enumerated below have been found to thrive and flower well in the following temperatures. Winter, when at rest, 50° to 55° by day, and 45° to 50° by night. In warm, sunny weather, with plenty of air, the thermometer may be allowed in the day to rise to 60° ; but by no means let that heat be exceeded, or premature growths might be excited, which young sheets would be sure to damp off if many dark, damp days should succeed the warm, sunny ones. Summer, day, 55° to 65° , and 50° to 55° by night. Now, these degrees of heat are not at all distressing to the most delicate constitution, therefore, any one desirous of cultivating these most beautiful plants, and possessing a tolerably good greenhouse, may grow them without any dread of their suffering in health. There are, as my list will show, a sufficient number to fill a small house by themselves, or, if the house is too large, one end may be appropriated to them, and the remaining space filled with the ordinary inhabitants of the greenhouse; or they may be mixed with them, and such as are grown in baskets may be suspended from the rafters, here and there, above the other plants. Whichever method is followed, the cultivator must pay attention to the following points:—Never to place an Orchid so near to a greenhouse plant as to render it liable to be wetted with the water given to that plant, either overhead from the syringe, or the watering-pot, or any more than is necessary at the root. Unseasonable wetting, or watering, is peculiarly injurious to Orchids grown in a lower temperature than ordinary. Then, again, constant watchfulness must be exercised in seeking for and destroying all kinds of insects and vermin that will infect and prey upon the tender shoots and roots of Orchids. The common cockroach will live and multiply even in such a low atmosphere, and our hardy brown and black slugs, or snails, will be found more numerous than in a higher temperature. Wood-lice may be kept under by keeping a toad or two in the house. The various kinds of *Coccus*, the scale-like insects, will soon congregate in great numbers on the Orchids, unless kept under by frequent spongings. Even the common Green Fly, or *Aphides*, will sometimes attack the young shoots and flower-stems; and the pernicious Thrip will bite and feed upon the leaves, both young and old. All these tiny enemies are very annoying and destructive to the health and well-being of the plants. A constant war must be waged with them. Tobacco-smoke, and tobacco-water in which soft-soap has been dissolved, are exceedingly useful, judiciously applied, as destructive agents to many of these pests, especially the white and brown scale, the Green Fly, and the Thrip.

I now conclude these few brief cultural remarks, which I intreat the cultivator, or intended cultivator, to study, mark, and learn, and put into practice, as near as circumstances will allow. I shall now proceed to give the names of such species as I have either grown myself, or seen grown by Mr. Edwin Wheeler, successfully, in the low temperature above given, which is much less than they have hitherto been supposed to require.

BARKERIA SPECTABILIS (THE SHOWY BARKERIA).

Native of Guatemala, where it is found in elevated situations, growing on branches of trees. It has pseudo-bulbs three to four inches long and about as thick as a common quill, growing in clusters. The leaves are sharp, oval-shaped, light green, and deciduous, falling off when the growth is perfected. The flowers are large and beautiful, and finer and brighter coloured in a low temperature. In a high, close temperature, the flowers are thin and paler in colour; the pseudo-bulbs grow weak and less every year, and finally pine away, and the plant perishes. It should be grown in a rather small basket, and suspended from the roof of a cool house, where it has plenty of air. So managed, the pseudo-bulbs will grow stronger every year; the spikes of flowers would be longer and more flowers produced. This is one of the very best Orchids for a cool treatment.

BLETIA HYANCINTHINA AND B. SHEPHERDII.

Beth these lovely species are hardy greenhouse plants, rarely cultivated as pot-plants. They belong to what are termed the terrestrial class of Orchids; their leaves and flower-stems die down annually, and their pseudo-bulbs remain alive under ground; hence, when at rest, they take up little room, and the pots may be laid on one side, under the stage or on a shelf, so as to be kept at rest through the winter. Examine them in the spring, and if any signs of growth are visible, shake them out of the old soil, and repot them in a compost of sandy peat and leaf-mould, in equal parts. Drain well, and give a gentle watering to settle the soil and stimulate growth. The supply of water must be moderate for the first few weeks, till the leaves have attained some size, and then water freely. Let them have plenty of light whilst growing, and when the flowering season is over, and the leaves begin to turn yellow, gradually decrease the supply of water, and, finally, cease it, cut down the leaves, flower-stems, &c., and place them again in their winter quarters. The flowers are of a lovely purple, and last a considerable time in bloom, therefore, they are worthy of all the above care.

CALANTHE VERATRIFOLIA (VERATRUM-LEAVED CALANTHE).

This is also a terrestrial Orchid, native of Java, ever-green even through the winter. It has beautiful pure white flowers, produced on long spikes, and lasts a long time in bloom. It thrives well in fibrous loam and peat intermixed with pieces of charcoal. It sends out a shoot from the base of the preceding one that flowers, and generally, whilst blooming, the next shoot makes its appearance. The leaves of the flowering-shoot continue green through the winter and then decay. Whilst growing, occasional waterings with liquid-manure will be of great use to stimulate growth, and thus increase the size and strength of the leaves. This stimulation must, of course, only be applied during the warm summer months; but the plant must be watered the rest of the year with rain water; repot in spring, using plenty of drainage, and give as much light as possible, by keeping the plant near to the glass.

C. VESTITA (Clothed Calanthe).—A beautiful species, with large flowers of a creamy-white colour, and a large spot of crimson in the centre. It has pseudo-bulbs, oval-shaped, and of a silvery-grey colour. I have never seen this lovely species grown in a cool house; but I have no doubt that it will thrive well in such a place, providing it is kept dry in winter, and no frost allowed to reach it. It loses its leaves every autumn, and the flower-stems spring from the base of the bulbs. In a hot stove these flowers are produced in winter; but, I imagine, in a cool house they would remain dormant till late in the spring. The pseudo-bulbs should never

be covered, but allowed to stand above the compost, which should, in composition, be exactly like that described for the preceding species.

CATTLEYA.

I am sorry to have to report that there are no Cattleyas that will do well in a low heat. I have, however, some notion that *C. Skinnerii*, a native of Guatemala would; for Mr. Skinner himself informed me, once, that he has found it in situations where he sometimes saw unmistakeable signs of frost. I would recommend the grower of Orchids in a cool house to try this showy, handsome species of Cattleya.

CÆLIA MACROSTACHYA (LARGE-SPIKED CÆLIA).

The climate of Guatemala must be very temperate, for that country furnishes us with many handsome Orchids that will grow here in a low temperature, and this Cælia is one of them. I have seen large plants of it grown in great heat that never flowered, whereas, in moderate heat even small plants flower freely. It has large pseudo-bulbs, and the leaves are evergreen, frequently from one-and-a-half to two feet long. The flower-stems spring up from the centre of the leaves, and the flowers are produced on a spike sometimes two feet long; they are of an orange-red colour, and though each flower is small, individually, yet the spike makes a gay show. They do best in pots, in a rich, light compost, much the same as that for *Calanthe*. Plenty of water is required when growing, but a less supply when they are comparatively at rest.

CYPRIPEDIUM BARBATUM, INSIGNE, AND VENUSTUM.

These handsome Ladies' Slipper plants do exceedingly well in a low temperature; much better than in an uniform high one. In the former they grow stouter and stronger, and, consequently, flower better and more regularly. The flowers have a considerable resemblance to a fanciful Chinese slipper. The foliage of the first and the last is beautifully spotted. They are evergreen, with long, thick, woolly roots. They must be kept constantly moist, but, of course, more so when growing freely in summer than in winter. Peat, loam, and leaf-mould, in equal parts, is the best compost for them, kept open with pieces of charcoal; the pots to be well drained. They thrive best in a full light, and should, therefore, be placed near the glass. Repot in March or April, and, if large plants are desired, never divide them unless they become unwieldy. I have had plants of *C. insigni*, in 12-inch pots, with upwards of twenty flowers open at once. It was then a truly splendid object, but it requires many years' care and attention to produce such splendid specimens.

CYRTOPODIUM ANDERSONII AND PUNCTATUM.

When these two plants are well-grown and finely bloomed they are really noble objects; but though plentiful in collection they are seldom well flowered. The reason, I am satisfied, is because they are grown, generally, in too great heat. Treat them as greenhouse plants, they will grow stronger, have shorter, stouter pseudo-bulbs, and flower as certainly as a Tulip.

Supposing a plant of each has passed through the winter safely in a state of rest, it will be seen they are without leaves, with firm, long, pseudo-bulbs, the last made of which will have a prominent bud at its base. By the time the days begin to have the warmth of a spring sun, these buds will begin to swell; then is the time to think about potting them. A quantity of green turf should then be procured, together with some half-decayed leaves, and some broken bones and charcoal. Chop the turf into small squares and mix the other materials with it, in the proportion of two-parts turf,

two-parts leaves, and an eighth-part bone and charcoal. Place this compost in some place where it will become partially dry and warm. Then turn the plants with their balls out of their pots, and shake gently all the old soil away from them. Examine the roots, and cut away all that are quite dead, carefully preserving all that are alive. Then drain the pots well, using a large size, for these plants have many long, thick, fleshy roots. Place the plant in the middle of the pot, and fill in the compost around and amongst the roots till the pot is nearly, but not quite full, keeping the plant steady, and leaving the buds just out of the soil. Press it firmly down, and then thrust in close to the plants a strong stick or two. Tie the last made bulbs to these sticks. They are so heavy, that if not securely tied to and supported by the sticks they would fall over. The plants may then be placed in the house. No water must be given till the new shoots have made some growth and begun to push forth roots. Then, with a knife, cut off just within the surface any grass plants that may be growing, place a thin covering of fresh loam over the compost, and give a gentle watering. If the bulbs have been well-grown the previous season, and properly rested through the winter, the flowering-shoots will be perceived growing conjointly with the young pseudo-bulbs. If they are not visible, then the plants will not flower that year. As the plants advance in growth increase the quantity of water, and when in full vigour, treat with a good feed of liquid-manure; but do not force them into weak, long growth, by too great heat and short supplies of pure air. If the growths have gone on well, and are short, stout, and healthy, then, in August and September, gradually reduce the quantity of water. By October all the leaves should have fallen, and the pseudo-bulbs should be of a clean bright colour, and as firm as a walking-stick. Then give no more water, but place them on a high shelf, in the full light and sun, keeping them quite dry, and not allowing a single drop of water to fall upon them. Then, in spring, repot them, and I will warrant they will flower well. I have been particular, almost to tediousness, in describing the culture of these Orchids; but they are so handsome when well bloomed, that they will amply repay the cultivator for his trouble and care.

T. APPLEBY.

(To be continued.)

PLANTING LARGE OR SMALL TREES AND SHRUBS.

SINCE the transplanting of large trees has become so fashionable of late, the next enquiry will be, what description of tree is most deserving of such an expensive operation? Many, if not most, trees bear transplanting when large pretty well when they have been prepared for it; but every tree that undergoes the operation is not always prepared.

We all know that the best fruit-trees are now taken up every year while in the nurseryman's hands, and transplanted again; the long, straggling roots are all shortened in, and the deep tap-rooted ones cut away; so that what would otherwise have been a naked, long-rooted tree, in all probability much injured in the taking up, is at length offered to the customer with beautiful tufts of fibrous roots, extending a uniform distance all around; and, at the proper time of lifting, that operation is done with little labour and no sacrifice. Contrast this with another state of things, wherein a tree has been growing, for a number of years, in a rich, open soil, undisturbed by anything; unchecked in its natural tendency to send its long, fibreless roots out to a great distance from its collar, to act as a brace to it, as well as eat its food;—this tree has but a poor chance to succeed, when its very limited number of roots are cut through at a very

considerable distance from the trunk, and the earth that surrounds what is left is squeezed together, by some machinery or other, into an almost impenetrable mass. A tree thus removed *may* live, certainly; and abundance of good earth at the place where it is taken to, coupled with a favourable season, *may* help it to grow; but the chances are, that it does not grow so much in six years as it has done the last one; that is to say, if the tree be a large one. Smaller trees sooner recover their dismembered roots, and, if all be favourable, they grow on apace.

As a partial remedy to the above, some of the most successful planters of the present day dig a ditch or trench all around the tree one full year before they remove it; some leaving the trench open, others filling it with rough leaves, or other litter, and some filling in the earth again, contenting themselves with having cut the main roots asunder; a check on the growth of the tree certainly takes place, and it is in a much better condition to plant the ensuing year. This plan, however, cannot always be adopted; time and patience being obliged to succumb to an anxiety to have the job done off-hand, and to work the parties go at once. I might here observe, that, in addition to preparing the tree for planting the year beforehand, by cutting its roots all around, some shortening, or lessening of the top is also done at the same time; others, instead of digging a trench all around, dig it on two opposite sides only, but closer to the tree; and some even go to the length to undermine it, leaving the two sides not cut into to serve the purpose of keeping the tree alive, the cutting, or cropping, as above, being likely to check the growth and partially harden the tree for its removal. All these modes have been tried with more or less success; and the after-care of properly planting and securing, aided by a favourable season, often enables the tree to surmount the sacrifices it has made in the change.

It is needless here describing the machine by which large trees are moved from one place to another; suffice it to say, that a very simple one may be formed of stout planks made into something like a large door, and two or three wooden rollers underneath, instead of wheels, which cut into the ground so much, especially as planting must be done when the ground is soft and wet. It is easy to construct such an apparatus, and the lowness of the rollers often enables it to be run underneath the ball of the tree; or, if not, it might be raised a little with triangles in the usual way, there being no difficulty in unloading it either; and, being furnished with hooks at the corners, horses can be attached when wanted. It will be easily understood that the roller bearings are fastened at their ends to frame work supporting the floor, or bottom, as above; in fact, the rollers are in place of wheels, which mark the ground very much when it passes through the dressed park.

Now, much as has been said on the planting of large trees and shrubs, and the care and trouble given to make them succeed; a much greater success would attend the planting of small things, were sufficient pains taken to plant them; but the fault, often, is this. Small plants with ordinary care are, in most cases, certain to grow; hence the temptation there is to maltreat them. After being carelessly taken up, and their roots cut or injured to a great extent, they often lie about for some time, and when they are planted they are often next to thrust into the ground, notwithstanding which they often grow; but it can hardly be expected that they will grow so well as those which, having been taken up carefully, with all their roots uninjured, are planted again in ground well prepared, with their roots spread in all directions, in straight lines from the collar, so that when they begin to grow their roots may be in a position to derive sustenance from an extended area, with the prospect of increasing that every year, by abundance of

proper soil surrounding the place where the tree is planted. With ordinary care this way, and planting fast-growing plants, it is surprising what progress will be made in a few years; and the vigorous health of the specimens so treated, contrasts strongly with the backward growth of the large trees subjected to the planting operations, which we so often see exemplified in places where a tolerable share of success has been said to have attended heavy work of that kind. Not but that there are some worthy exceptions, but the great bulk of large trees and shrubs so planted do look badly for two or three years, or more, and some never recover their health again.

Necessity, or a wish to create "present effect," may, in some cases, justify the lifting and planting of large specimens; and some plants of slow growth cannot, by any ordinary means, be brought to grow rapidly; in this case, larger trees might with advantage be substituted; for instance, the *Araucaria imbricata* is not a fast-growing tree, and being one of the most popular ornaments of the garden, a more than ordinary amount of care ought to be exercised in removing one, if it can be had, and there are many things which bear transplanting worse than the *Pinus* tribe; but the *Araucaria* is often a long, strongly-rooted tree, and almost destitute of fibrous roots near the collar; when such is the case, be more than ordinarily careful to save those that are near home, and in planting, train out the long roots to their fullest extent, and a good proportion of them to the windward side, or, in other words, in the direction from which the highest winds blow. The south-west wind is commonly the strongest in many parts of England.

In general, most *evergreen shrubs*, and many *Pinuses*, like a dry, stony, or gravelly soil, with a good depth of soil resting on a substratum not unfertile; in fact, not a hungry, pernicious gravel; but some of the *Pinuses*, especially the *Picea*, like a moist soil; and even the *Araucaria* likes a deep, cool, friable loam, rather than a dry, sandy, or gravelly soil; while, on the other hand, *Hollies* are found on all soils, but attain the greatest size on rather stiff, hazelly loam; at the same time, they are found in great abundance in some woods of a peaty character. *Scotch Firs* are often found wild in such situations also; while dry, chalky hills are often clothed with *Yew* and *Juniper*, which, however, thrive very well in the stiff, retentive soils sometimes found in the vallies as well. One thing, however, may be set down as a rule, that a plant which delights in a moist, peaty soil, as the *Rhododendron* and others, will not thrive in the dry, chalky soils of some of our hilly districts; and even the removal of a large quantity of suitable material to such a situation will only for a time ensure the health of the plant so placed, the ground having a tendency to alter the character of the material imported to it, so that in time it will assimilate with the stratum surrounding it; neither are opposite mixtures beneficial in all cases. Lime and peat, though useful fertilizers, absolutely devour each other when mixed.

Deciduous trees of most kinds plant tolerably well; but much more so if they have often been taken up, and the roots taught the process of "preparing themselves" for such changes; as is the case with most fruit-trees now-a-days. As the welfare of the plant depends mostly on the way in which it has been taken up, it would be better to make that all-important duty the first object sought after; next to which, the preparation of the intended site, by a good digging and mixing with any better material at hand; and if the removal be from a soil differing widely from the one it is now to occupy, it would be as well to imitate it a little, by spreading a small quantity of similar soil over its roots at planting time, which will gradually merge into the other; at the same time, be it remembered, that

extreme mixtures are not always good; and as plants are found on all positions, the nearer we approach to the one of which the specimen in question may be a native, the more likely are our efforts to be crowned with success.

J. ROBSON.

CONSEQUENCES.

By the Authoress of "My Flowers."

(Continued from page 166.)

It requires much grace in the heart to justify the Lord in all his dealings with us; to *consent* to His dispensations because they are "very good," instead of submitting to them because they are stronger than we, or because it is of no use to fight against God. It is a great attainment, even in the life of a true believer, to be able from the heart to say, "I know, O Lord, that thy judgments are right, and that thou in faithfulness hast afflicted me." Those who neither possess or profess lively faith are, nevertheless, sometimes constrained to confess that all things have worked together for their good, though they considered not how, nor why. And have we not ourselves, reader, often looked back upon trying times, when the sun shines again, and feel that we had much happiness, even while the trial lasted? and *sometimes* even sigh for the days we once struggled through and mourned over?

Mr. and Mrs. Grosvenor formed one or two very valuable acquaintances during their retirement among the wild Welsh rocks, which they might not have done under other circumstances. People of small means live so entirely out of sight, that, until privation compels us to nestle into holes and corners too, we do not find them out. They may have lived next door, or in a neighbouring lane or village, and we know nothing of them; but many a gem sparkles in dark places, and this Mr. and Mrs. Grosvenor soon found.

The little snug tea-drinkings that take place among the like-minded and the like-situated; the little, cheap, home-made dainties, placed before kind and admiring eyes; and the simple, friendly reciprocities of cottage life, among people of gentle blood, but empty coffers, possess more real charms than are dreamed of by those who have plenty of money, plenty of servants, and nothing to do.

The occasional excursion from the village on the hill, overlooking the bright bay, the rocky inlets, the old ruined castle, and the fleet of fishing boats, to the village on the margin of the sea, beneath towering rocks, with the waves washing oyster-shells nearly to the doors, and the hoarse voices of the fishermen giving life to the scene, as they sprang in and out of their heaving vessels, hoisting or lowering their sails, and uttering the sea-cries which landsmen cannot learn—was very pleasant in soft summer evenings. The moonlight walk home was safe, though steep; and, but for the sins and infirmities of the natural heart, there seemed no cause for trouble or anxiety in this quiet and unpretending mode of life. The absence of temptation was a great protection to Mrs. Grosvenor. Her husband was removed from all scenes and companionship that had powerful influence over him; and only when he rode into town, and contrived to have business with the wine merchant, were her fears aroused.

The most terrible of all trials connected with her husband, Mrs. Grosvenor seemed to pass lightly by, except when it became the subject of conversation with others. His Socinian views were fearful, when exposed to the light; but they did not appear to interfere with domestic comfort. Nothing was said or done to call them forth. Alas! what a picture of connubial life! Religion, of course, was a subject banished from their discourse together; neither prayer or praise *could* ascend from their hearth, to bring peace and a blessing from on high; and how any two persons can live together contentedly, in total abstinence from religious observances and influences, it is difficult in a Christian land to conceive. I do not mean to convey the impression that Mrs. Grosvenor disregarded Sabbath worship—far from it. Mr. Grosvenor also accompanied his wife occasionally to church, but without distress and contention no social devotion could be kept up, nor could conversation be seasoned and sanctified by religious affections, or reference

to Him without whom we "have not the Father," consequently our immortal part is dead in the sight of God. To be content under such a dispensation is an awful position. Mrs. Grosvenor married in very early youth, and asked no questions. She loved the man, and took him "for better, for worse," without any thought beyond personal affection; but when perception came, and she found the man she had bound herself to with indissoluble bonds was one who knew not God; without hope in the world, except that blind, and ignorant, and groping hope, which neither sanctifies nor satisfies—to sit down quietly under such a perception seems almost impossible! and makes us shudder as we reflect. Mrs. Grosvenor, when in company, must have dreaded any topic bearing upon serious subjects. General society, alas! is seldom the place where religion is outwardly acknowledged; but, in family and domestic circles, opportunities arise for enemies to blaspheme; and, unhappily, those in error are frequently more valiant for the lie, than many of their neighbours are for the truth. Sometimes Mrs. Grosvenor would sit trembling and horror-struck at the awful opinions uttered by her husband, when disputing upon Scriptural things. Oh! that her situation may be a beacon to other young and thoughtless women, who know not what wretchedness and peril of soul they are dashing into, when they take the first offer made them, and bind themselves for a long and dreary life to they know not who or what.

It is wonderful to see how unbelievers mock themselves. Mr. Grosvenor was a very ignorant man; he had no power to reason or calmly consider a subject; and proof or persuasion to such a mind were alike unavailing. But rejecting, as he did, the truth and evidence of God's Word, yet he built his feeble sandhill upon it after all! There was no spot of earth, even, for him to plant his wretched lever, but the Word that abideth for ever! The text which he chose to support his unhappy opinions was this: "And what, O man, doth the Lord require of thee, but to do justly, and love mercy, and walk humbly with thy God?" This simple impossibility, without the strengthening power of Christ, and the sanctifying influences of the Holy Spirit, was the groundwork of Mr. Grosvenor's hopes, detached from every other portion of God's Word; and without any attempt to practise the mighty rule laid down, did he blunder on through the dark mazes of infidelity, and the turbulent vicissitudes of this weary world. Amid the exquisite scenes of nature—the wild beauty of Welsh hill and dale, and heath and grove, on the one side, and the unquiet tossing of the sparkling waters on the other; with a heaven of glorious beauty and unutterable preciousness above his head—did this unhappy man "stumble upon the dark mountains," without chart, or compass, or land-mark to direct him, and not even one ray of hope to cast upon and cheer his way. The simple and peaceful cottage, the kindly offices to the poor around them, the snug fireside, the friendly associations, and the comparative absence of wordly disagreeables, were all marred, and cankered, and defaced, by that one sad conviction and horrible fact, that beneath that roof, and amid those pleasures and usefulnesses, there dwelt an *unbeliever*.

(To be continued.)

DIOSCOREA BATATAS.

THE experience we have had here of the cultivation of *Dioscorea Batatas* does not correspond with the results of "C. B. S." A tuber of it, the size of a fine Marrowfat Pea, was planted in April, in a pot, and was afterwards shifted in a 24-pot, and kept in the greenhouse. The product resulting from this treatment was two tubers, averaging three-inches-and-a-half in length by three in circumference, both of which were formed at the bottom of the pot, and raising up the drainage in their growth. They were united together just under the surface of the soil by a large under-ground stem, apparently full of eyes, attached to each. Did not the produce equal that of a Potato of a similar size when planted?

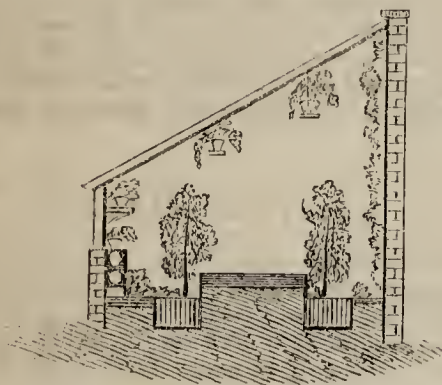
Some tubers were also planted in the open air, or mounds of well-prepared mould. On examination, a similar under-ground stem was traced to the distance of about fifteen inches; but an unlucky pull detached it, and no trace of

the tuber was afterwards to be found, though, doubtless, it will make its appearance somewhere above ground next year.

Would not this suggest the plan of planting in beds lined with tiles, at the same time securing a good drainage?—S. D., *Guernsey*.

ORCHARD HOUSES.

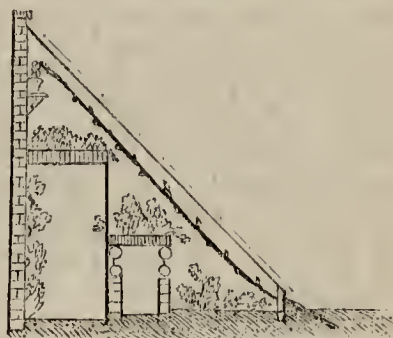
(Continued from page 184.)



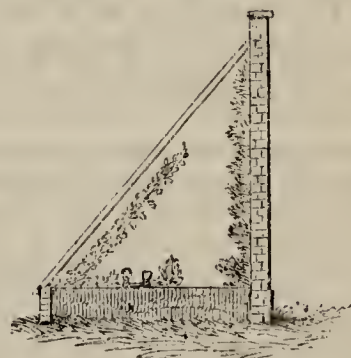
As we are as various in our ways and tastes as the roads we take, I shall describe another house, and call it No. 4; it is twelve feet wide; two feet of brickwork in front, and three feet of glass; the air is given by pushing down the front sashes, the brickwork being left hollow for the purpose; the back wall twelve feet in height; the top lights are fixed, a few ventilators are placed here and there at the top, in case of a very hot summer, which may be opened in the middle of June and shut the end of August. Now, to meet Mr. Rivers with Roses, Strawberries, &c., I introduce a shelf above the two hot-water pipes in front, and another half way up the front glass, the latter being a temporary affair, and taken away in summer. Need I tell the stay-at-homes that two or three extra ones could be made room for, allowing five feet for the path, which, of course, would form part of the border. There are three feet left on each side for the trees, which should be trained on the pyramidal system, and not planted opposite each other. By covering the back wall it will give you a surface I have not seen equalled for fruit, by what is called an orchard-house; and here, again, you have a promenade worth the name. The borders could be covered with *Calceolarias* and a host of interesting plants; here you would have to water; but a good syringing, and watering at the roots once weekly will be sufficient, with the exception, of course, of the plants in pots. This must be new? Quite to the contrary; a hedge, again, not only suggests the idea, but was the means of its present form to the time of 140 feet in length. How was this? The late Mr. Atkinson, architect, nearly forty years ago, was employed to erect a range of conservatories; there was a long wall, and a privet hedge stood in front of it part of the way, about fourteen feet from it; the wall, of course, could not be set back. The noble proprietor put his shoulder to the hedge; there was no saying, Nay. Mr. Atkinson was in a fix, and though there are few disliked more to work against his will than Mr. Atkinson,—the house was erected betwixt. The hedge, of course, had to succumb even before the house was finished;—a sample of I will do with my own as I like.

Now for No. 5. We shall not suppose some of the narrow glens in Austria, nor yet one of the rocky dells in Africa, left dry by the summer heat, are covered with glass, where you, aye, and some of the stay-at-homes too, could, with power, work wonders in. Oh, no; I must be satisfied with smaller things. Well, therefore, I shall suppose a few men are employed in a high and dry airy situation, to excavate, on a small scale, an imitation of one of the above; it might vary from twenty to fifty or 1000 feet in breadth, ten to 100 in depth, taking the form of a corkscrew, by winding up or any other way to suit the fancy of the proprietor. I need hardly tell Mr. Rivers how easily a place of this description, on a small or large scale, could be realised, and how nicely groups of his pet trees might be brought out. A group of Mr. Lane's Morello Cherries would be very tempting for the ladies, besides masses of Roses, Camellias, half-hardy ever-

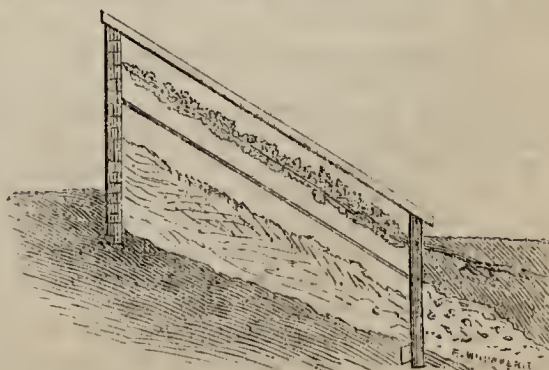
green shrubs, trees, such as *Araucaria*, *Excelsa*, &c. &c. This may appear a very extravagant affair; I think otherwise. What can be erected cheaper? No hedges, no boards, no bricks, no upright glass, no pots, no stages; the banks would do for all; besides, the roof need not be all glass; large cosy corners and recesses might be made for Ferns, or thousands of other plants, that could be covered with the cheapest material in use, placing here and there a light. I should have no costly Portland stone foundations, but drive in piles of larch or oak to rest the roof on. I should have good, wide walks inside, and, of course, give it as wild and irregular an outline as possible, forming a variety of glades and recesses.



No. 6 is a lean-to Vinery, which I call, also, a storehouse. It is twelve feet wide and fourteen in height; it is in four divisions, and about 130 feet in length. A look will be sufficient to show that it can be well packed, and only one row of pots used. Against the wall, and underneath the top bed, is shown four rows of *Geraniums*, tied up in moss, quite at home in their snug quarters. Don't you, brother-stay-at-homes, see how easily you may grow Strawberries, French Beans, Cucumbers, &c., in these beds, without pots? and why not three rows of nice dwarf Peach-trees? You would not see the top row, certainly; but look how early you would get them. Besides, if you are as enthusiastic as our friend, you would not begrudge mounting the ladder, even at night, with a lantern, to see your pets; and there is even room for a lady to walk along the path, though out of place here. The top bed is constructed on the same principle as in No. 2.

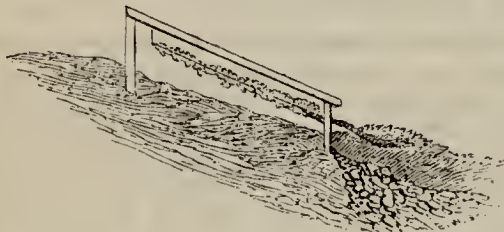


No. 7, a lean-to Peach-house. What! Peach-trees trained only half up under the glass! Yes; but look, the back is covered also, and I can tell you the back trees are little injured by the front ones, giving the largest space for Peach-trees within so little room I have seen. This is also in four divisions, and is nine feet wide and twelve feet in height, and 170 feet in length.



No 8 is a sketch of a Dutch pit, used by them for forcing

large Peach and Apricot trees, taken up from the ground in October or November, and forced, to produce ripe Peaches, &c., in May following. The straight line shown in the sketch represents an oil paper screen betwixt the trees and the hot manure, very essential when the trees are in flower. The manure is pitched in through arches from behind; but a Dutchman seldom renews it. I am not aware that my old friend, Mr. Nieman, ever did when he stood alone with his Peaches, Nectarines, Apricots, Figs, Raspberries, and Strawberries, in former times, at the Shows at the Horticultural Society. The great advantage the Dutch have over us in this description of forcing is their untiring, steady perseverance,—what is generally understood under the name of plodding—securely covering up, giving little air, always on the watch and look out for the frost and sun; the latter they modify by the application of birch. I think I hear some of my brothers calling out, “The fruit under this ordeal cannot be worth eating.” Quite the contrary. Mr. Dutchman, though represented as fond of his pipe, is not behind John Bull in knowing what is good. Their gardeners, therefore, some time before the fruit is ripe, take every opportunity the weather will permit to give all the air they can; and frequently draw all the lights off; and I need hardly say it gives the fruit both colour and flavour.



No. 9 is a Dutch Raspberry Pit, a very simple affair; but though simple, Mr. Dutchman knows what to do with it. Just take a look at my sketch; there is something apparently loose underneath where the roots of the Raspberries are placed; this is manure, or anything that will create a bottom-heat. Mr. Dutchman likes a foundation, and here he has it. Any one in the possession of a light could easily make such an affair, only you must not expect success without application. Covering and birch branches are again brought into action, and by these means he seldom has failures; and I can assure you he is not satisfied with mediocrity. Such apologies for Raspberries as have been exhibited this season by some of the best gardeners in England would only be looked upon by the Dutch with derision.

A Dutch gardener grows his Lettuce most systematically, one under each square of glass only. He prefers lead sash-bars for this. What is the reason of it? Why, to let the rain reach their roots sometimes; and this is the reason he places the plants in the centre of each square, to keep it from their hearts. But Mr. Dutchman will have no more rain than he considers sufficient. How can he help himself? Such covering will not keep it out. Oh! he knows a better move than that; he is always prepared with waterproof outer-covering, in the shape of what is known as Dutch Reed mats, wide enough not only to cover his frames, but linings also.

In conclusion, I have not called the show Orchard-house at Sawbridgeworth a toy—though surely not out of place. I saw this house within three days after I read the account, and though I found it as good as could be expected, still I remain of the same opinion.

“Those that are convinced against their will,
Remain of the same opinion still.”

The Orchard-house at Chiswick did not astonish me, but the Peach-wall did, and was a splendid affair. From what I understood from Mr. Thompson had been gathered, there must have been upwards of 500 dozen on the trees at one time; and, judging by the epicurean wasps, they as far excelled the fruit of the Orchard-house for flavour as they did in colour, and for ripening earlier. How is it that Orchard-houses retard in place of ripening?

The Pear-walls excelled anything for crops that I have seen; such as the *Beurré Rance*, *Glout Morceau*, *Easter Beurré*, *Marie Louise*, &c., &c., had every branch covered, like ropes of onions. The unassuming Mr. Thompson gives

what appears to me a good, common-sense reason for obtaining such a regular crop. He prefers the old horizontal system of training, and, in place of commencing at the ground with the summer pruning, he begins at the top, prunes about a third, waits a fortnight, then another third, and finishes a fortnight afterwards. By this means he believes he is enabled to regulate the sap, and give the lower branches their share; and, certainly, there was ocular proof to show they were in hands that had not to learn how to treat them.

Let it be remembered, that great credit is due to Mr. Rivers for being the means of bringing the pot-culture of Peaches into notice; but he must allow me to state, that Peach-trees in pots, after all, will never take the place of established trees in the ground, though very useful in their own place.—D. FERGUSON, *Stowe, Buckingham.*

DO FISHES HEAR?

As *vivariums*, filled with water, and made to imitate natural streams, with gravel, sand, shells, and weeds, have been of late much employed for keeping alive both fishes and insects, a few observations on the habits of fishes may be interesting, especially as made by one who has for some time kept one of these ingenious contrivances. It has, perhaps, never occurred to many people to entertain a doubt, whether fishes hear or drink. The latter may form the subject of a future communication; but, at present, it may be sufficiently startling to many to question whether fishes possess at all the faculty of hearing. We have often heard of fishes coming up at the sound of a bell, and being disturbed at the approach of footsteps in the dark. Nevertheless, that fishes are deaf, appears to be the belief of some of our best naturalists, and of the celebrated anatomist, Dr. Monro. Of his opinions, however, as I have not his writings to refer to, I cannot speak with as much certainty as I can of the opinion of my father, who assisted him in some of his experiments on fishes and reptiles, and who maintained that fishes do not hear. One of his experiments was firing off a gun near to fishes, but out of their sight. In this case, they took no notice; but when the experiment was made in their sight, at the same distance, they were startled. They were equally frightened at a clap of thunder; but, in that case, their fright proceeded, probably, from feeling the vibration of the air rather than from the sound of thunder.

These experiments have led me to the opinion that fishes have no perception of mere sound, though they are very sensible of sight and vibration. That a trout will start from under a bank, when the bank is trodden or stamped upon, is no more a proof of their hearing, than the fact of the mole ceasing to throw up its hillock at the least shake of the earth, from the tread of a foot out of hearing as well as out of sight. I do not affirm, however, that moles are either deaf, or blind, though the latter is a common notion with ignorant people. Their eyes are very small, for their protection under ground; but, in the case above supposed, they are alarmed by the tread, though it be too distant to give any sound. It has been supposed that fishes have come up at the sound of a bell. I have before me a *vivarium*, with fishes of various kinds alive and active. Some of them will come up when they see my hand moving over the water as if ready to drop them some food. If I held a small bell at the time, a bystander might suppose that the sound of it attracted them. But if I were to ring the bell, standing behind the door, they would take no notice. Fishes may have been fed after ringing a bell; but, in that case, they were attracted not by the sound, but by the sight and movement of the bell. Much, also, will depend upon the reflection of objects in the water, and the state of the weather; and it must always be borne in mind, that the sight of fishes is very perfect, especially in those which, like the pike, have their eyes placed more in the upper part of the head, and can, therefore, see very keenly in an upward direction. There is no appearance of any organs of hearing in the head of a fish, and I have found that when I rapped loudly on a shutter behind my *vivarium* the fishes took no notice whatever; whereas, the least tap on the window-sill on which it stands put them all in

motion. From all which, I have come to the conclusion, that fishes have no sense of hearing.—J. WIGHTON.

QUERIES AND ANSWERS.

GARDENING.

SHIFTING POT-BOUND PEACH-TREES.

"We have received some Peach-trees of a fruiting size in 12-inch pots, and much *pot-bound*, and think of giving them a shift into a size larger; *when* should it be done? We want them to *fruit* next season.

"We do not get your journal any sooner *now*, than when it was published on Thursday; *can* it be had sooner?—A READER."

[You had better shift into a size larger pot, but be careful not to injure the fibres.

You should complain to your bookseller about the late delivery, there is no delay at our office. If you send postage stamps to our office for a year's subscription, you can have the paper, free by post, on your breakfast-table every Wednesday morning.]

LARGE PUMPKINS.

"1. What is the weight and girth of the largest British and foreign-grown Pumpkins on record? Any information as to the variety, when, where, and by whom grown, will be very acceptable. I am induced to trouble you with this, because I have this year grown one six feet six inches round, that weighs 137 lbs. It may be seen at Messrs. F. and A. Dickson and Co's, Seed Merchants, &c., 14, Corporation Street, Manchester.

"2. What is the difference between Gourds and Pumpkins?

"3. Will the *Cucumis utilissimus*, and the Gizaumont, or Turban Gourd, come to perfection in England? and if so, where can I obtain some seed?

"The Pumpkin alluded to was grown in the open ground after early Potatoes, forced with liquid-manure, and at one particular time it increased sixteen inches in circumference in seven days.—G. WILSON, *Shavington, Cheshire*."

[We have no register of the size of Gourds and Pumpkins, but yours is, certainly, a very large specimen. We have seen them weighing 132 lbs. The Gourd is the *Lagenaria vulgaris*, and the Pumpkin *Cucurbita pepo*. The Turban, or Turk's Cap Gourd ripens in the open air in the neighbourhood of London, but we doubt if *Cucumis utilisimus* would.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

ESSEX. Dec. 27th, 28th, and 29th, at Colchester. Secs. Mr. G. E. Attwood, and Mr. W. A. Warwick. Entries close December 15th.

HANTS (SOUTH). 14th and 15th January, at Fareham. Sec. James James, Esq., Fareham. Entries close December 31st, 1855.

LIVERPOOL. 16th, 17th, and 18th of January. Sec. W. C. Worrall, Esq., 6, Lower Castle Street. Entries close December 24th.

NOTTINGHAMSHIRE, at Southwell, 19th and 20th of December. Sec. R. Hawksley, jun., Esq., Southwell. Entries closed November 20th.

PRESTON AND NORTH LANCASHIRE. Jan. 9th and 10th, at Preston. Secs. Messrs. Burnett, Leigh, and Hayhurst, Preston.

VALE OF AYLESBURY. January 2nd and 3rd. Secs. J. D. Muddiman, and Jas. Allen. Entries close December 20th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

BIRMINGHAM POULTRY SHOW.

No one who saw the small undertaking seven years since, in this town, where a few pigs and a little poultry were got together in a yard and loft, could have dreamed that it would end in anything like the grand exhibition

we have now to notice. And it may not be amiss, now that shows are so general, to look for the cause that has made success a certainty with them, and has enabled them, while making their own terms with exhibitors, to run an uninterrupted career of prosperity. Many have attributed it to the fact, that Bingley Hall offers facilities possessed by no other city or town in the kingdom for an exhibition; but they entirely forget the fact, that it was built by the Cattle Show Committee for the purpose. That Committee is fortunate in possessing gentlemen of much energy and perseverance as members of their council; and their real strength is, that from the first, they have pursued a course of undeviating rectitude and firmness. This has gained them the respect of all parties, and has given them the power to offer to the lovers of poultry such a treat as we have to record. This is but half the good they have done. They gave the signal note for the shows that have followed; they first called the attention of all classes to the fact that poultry was capable of improvement and worthy of attention.

Those who have not seen the shows can form no notion of the influx of strangers; and those who have not stopped at an hotel, know not the accession of business such a show brings. Being now in a disursive mood, and treating of that which is essentially preliminary, we have no doubt that the hotel and tavern keepers of Birmingham will thank us for the suggestion, that a piece of plate offered for competition, on such terms as the Committee might suggest or approve, would be a graceful acknowledgment of their obligations to those gentlemen, seeing that their only object is the success of the show and the good of the town; and no benefit to themselves, beyond that of helping to diffuse comfort and prosperity.

It is well, at the out-set, to meet all objections; and as it has been thought that the time of exhibition being the same as that of the London Cattle Show was a symptom of antagonism, we speak confidently, and, from careful inquiry, when we say, that no such feeling exists. This has not to do with poultry, properly speaking; but, as the two are combined in Birmingham, and as many are interested in both pursuits, we speak of it here.

Most persons are aware that this show had, three years since, attained such gigantic proportions, that the space originally allotted to the poultry proved insufficient, and it became necessary to conceive a plan, by which the exhibition should be unimpaired either in utility or attraction, and yet be kept within moderate bounds. The first step was to do away with the class for fancy poultry, but this was not enough. The council, therefore, determined to allow none but subscribers of £1 to exhibit, and to limit the number of entries by each to four. Even under this arrangement the pens have this year increased.

Admirers as we are of this exhibition and its promoters, we say, long may it be supported as it deserves, and may success ever reward those who first conceived the idea, and then carried it out. Not even the most fastidious could this year object either to the design or execution of the Silver Cups which formed the prize for the best pen in each class, and nothing could be more creditable to the taste and workmanship of Messrs. Mapplebeck and Lowe. They are beautiful cups, with handles and covers. Another boon conferred on exhibitors was, that in all cases, even third prizes were to be taken in the shape of silver medals. This is a boon, because many persons who are careless of fifteen shillings think highly of a silver medal.

Those who read the prize list and the report, in which it is stated that this was the best show on record, will, perhaps, be surprised at the apparent fewness of commendations; but it must be remembered they were general. Indifferent specimens were the exceptions, and excellence was the rule.

We can speak highly of the *Golden-pencilled Hamburgs*, which were a capital class, and which appear to have been bred more carefully than the *Silvers*. The Rev. T. G. M. Luckock, Mrs. W. C. Worrall, and Mr. Josiah B. Chune, took prizes in order for old birds; while the chicken prizes were awarded to Mrs. Worrall, Mr. Worsey, and Mr. Gilbert Greenall.

In almost all our reports we have to mention the same names in the *Spangled* class. Thus, in adult birds, Mr. Charles Horsfall, Mr. John Andrew, and Mr. James Dixon, were successful; while younger birds placed Mr. Dixon first, followed by Messrs. James Bainford and Mr. John Hill.

In the *Silver-pencilled* well known names competed, but were somewhat transposed from the usual order of this class. Mrs. Dixon, of Bradford, stood foremost in old birds, Mr. E. Archer and Miss Tuley followed; Mr. Cox, of Brailsford, claimed first honours in chickens, followed by Mr. G. Botham and Mr. Archer.

The beautiful *Silver-spangled* birds of these classes were well represented. The first prizes were awarded to the Rev. G. M. Luckock and Mrs. Lyon Fellowes; second, to Miss Tuley and Mr. Bill; third, to Mr. Chune and Mr. Gilbert Greenall.

We have next to do with *Polands*, black, with white crests, and here Mr. Edwards was forced to lower his colours, taking second prize in each class; while the first were awarded to Mr. G. Perkins and Mr. T. Battye; and third, to Mr. Guest and Miss Bury. These birds were really beautiful.

Few classes have improved more of late years than the *Gold* and *Silver Polands*, more especially the latter; and their beauty was the theme of constant remark. An old and deserving exhibitor, Mr. C. Coleridge, of Eton, took the first prize in the Golden variety, followed by names of note—Mr. Conyers and Miss Vivian; it was, therefore, no mean triumph. Birds of 1855 contributed laurels to the yards of Mr. Jeffery, Mr. Lawson, and Mr. John Mills, Jun.

Messrs. Dutton, Rowland, and Vivian took the prizes for varieties, and Mr. Coleridge for chickens.

Next came the aristocrats of the poultry-yard, the *Spanish*. Here, Mr. Henry, of Manchester, achieved a triumph of which he may well be proud. Mr. Davies, of Hommslow, took the other prizes, and the first prize for chickens. Mr. Brandish, and the Rev. S. Donne took second and third. Both these classes were excellent. We must refer to the list for commendations; the names and numbers must speak for the severity of the trial to which every bird was exposed.

It is difficult to speak too highly of the next classes, the *Dorkings*. If the Spanish are the aristocrats of the yard, the Dorkings are the stern and useful stuff of which valuable members of society are made; and their claims to the distinction of being entitled to the useful and valuable properties which call for prolonged popularity, were sufficiently indicated by the large number of entries and the excellence of the specimens exhibited.

In the *Dorking* classes all the giants met, and some of the aspirants to fame came out advantageously. All may be proud, for it was no ordinary struggle. Birds which, two years since, would have "walked over" for the cup, were here content to be commended. Whether we consider the numbers exhibited, the celebrity of the owners, or the quality of these birds, we say, unhesitatingly, this class has never been equalled. Mr. Davies, of Spring Grove, gained the first prize and the cup, adding one more triumph to the number already achieved by that gentleman during the year. The Rev. Mr. Boys was second, and Mr. Loder third. It was almost painful to see pens of exceeding merit with only "Highly Commended" written over them; but what could be done? Three prizes had to be distributed among fifty deserving pens. We think that, while this may add to the glory

of the successful, it may also comfort those who were less fortunate.

The *White Dorkings* are a rising class, and gaining that which they have long wanted,—which is size. All the prizes in these classes went to names already distinguished.

Cochin-China fowls next came in order on the list; and we think we are justified in saying, that the adult birds were better than we have seen for some time. The Rev. S. Donne was first on the list, and deservedly; as he showed an unusually good pen, which gained him the Silver Cup. We believe this is the third gained by these celebrated birds. We hope and think these birds are looking up. They were made, at one time, speculative merchandise, irrespective of their properties as fowls; and, although they will not now realize unreasonable prices, still, we think their sterling qualities should ensure them the popularity they deserve. The *White Cochins* were not numerous, but there were good birds among them. There were good birds among the *Grouse* and *Partridge Cochins*, as will be believed, when it is seen a very much respected exhibitor, Mr. Punchard, got only a high commendation. There were some changes of position among the varieties in the class for old birds. The *Black* were weak both in numbers and quality; and we think, unless a much better competition demand otherwise, the class should be abolished, and the prizes added to others. It seems unreasonable that Judges should have the same number and amount of prizes to divide between five pens of sorry *Black Cochins* as among two and three hundreds of excellent *Dorkings*. The rewards to the latter might be doubled by this alteration, and the importance and merits of this class well deserve it.

And now to the *Brahma Pootras*. These were scarcely equal to the birds of last year, if we except the prize pens. Mr. Davies' old birds were, as usual, the first in the class. The first prize for Chickens was given to a beautiful pen belonging to the Rev. G. Calvert. It may almost be said that these birds have not yet justified either their friends or their enemies; while they have not realized the expectations of the first, they have most certainly falsified the predictions of the second.

We are now brought to the classes for *Single Cocks*, and, for the first time since their institution, we do not think the general aspect of the pens was lessened in merit to enable their owners to gain laurels here.

We scarcely need say the *Game* classes were of the first order; and the pens were few indeed which did not deserve commendation. The usual names will be found among the prize-takers, though, as in other classes, they are somewhat transposed, compared with former years. The spread of poultry knowledge, and the sale of eggs from the best strains, will make it more difficult every year for even the best exhibitor to take many prizes in one class. It would be impossible to do justice to the beautiful birds in these classes.

The *Malays* were very good; but we think exhibitors will do well to be very particular in choosing cocks with perfect combs.

The *Various* class did not show as many monstrosities as usual; and the most meritorious were considered to be the *Cuckoos*, *Serai Tü-ooks*, *Andalusian*, and *Calcutta Jungle*.

Gold and *Silver-laced Bantams* next claimed the attention of the Judges, and good birds "plentiful as blackberries," while some were unusually meritorious. Our well-known friend, Mr. Hewitt, took first for golden, and well deserved it; Mr. Hineks took second. Mr. Leno took both prizes in silver, hard run by Mr. Hewitt. We did not think the *Blacks* and *Whites* as good as usual. The *Cocks* of these breeds should have long, sickle-feathered tails, and many of the birds were deficient in this respect. Among the other varieties, we are bound to mention the *Duckwings* of Mr. Forrest.

We wish the latter gentleman could match his matchless cock with true hens.

Of the *Geese* we give merely the weights of the successful pens:—White, first prize, three birds, 64lbs.; second, 48½lbs.; third, 48lbs. Coloured, first prize, three birds, 73½lbs.; second, 62lbs.; third, 60lbs.

The class of *Aylesbury Ducks* was unusual, both for numbers and quality. The first-prize birds weighed 29½lbs.; second, 29lbs.; third, 28½lbs. If ever a class deserved general commendation, this did. *Rouen Ducks*, which formerly formed part of the “any other distinct variety” class, here brought forty pens. We need not say many were excellent; but we must add, sufficient pains are not taken in selecting Ducks with bills of the proper colour. No rule can be more simple. They should in all things resemble the wild Ducks. There were but three prizes to distribute among a large number of good birds. In the varieties, Miss Worrall, with *Call Ducks*—beautiful specimens of the Brown; Mrs. Tennant, with Buenos Ayrean; and Mr. Ballance, with the same, were the distinguished trio.

The *Turkeys* were not numerous, but very good. An old and meritorious exhibitor, Mrs. Henry Fookes, took the first prize, with a pen weighing 55½lbs. As this lady knows when she has good birds, and intends to keep them, she put £200 as the price; had it been merely a large price they would have been sold. The Rev. H. Owen was at the head of young *Turkeys*, with a splendid pen of Americans.

With a few more remarks, and seeing we shall be obliged to defer some particulars of this great meeting till next week, we will close for the present.

We had fewer mistakes in lotting birds than usual. Many pens showed the difficulty of matching three hens. Thus, Lord de Blaquiére showed three Silver Cinnamon birds of remarkable beauty; but the fourth disqualified them from prize-taking. Among the strange things was a pen of White Dorkings exhibited in the name of the Duke of Sutherland. It contained a cock, two hens, and the most exaggerated specimen of a hen-cock we ever saw. Had it been exhibited by any humorous *habitué* of the Poultry Show, we should have said it was a quiet satire on the hen-feathered cocks, which we are happy to see disappearing.

The sales were very numerous, although, from the altered price of birds, the amount taken is not so much increased as might be expected. Four years since, a pen of Cochins would make £10, now they sell for a fifth. A few facts will, however, show that good birds will command good prices. The Countess of Chesterfield sold a Dorking cock for £15; Mr. Davies and the Rev. T. Donne each sold pens of Dorkings for £30; while sales of single birds, at from £4 to £6 each, were common. Mrs. Herbert sold a pen of White Cochin chickens for £10 10s.; and the numerous sold-tickets nailed on the fronts of the pens showed the demand was on the increase. The facilities afforded to purchasers by the new rule allowing the cock, or either of the hens, to be sold separately, proved advantageous to all parties. We must, seeing the length of our report, defer other remarks till next week.

(From another Reporter.)

THE Olympic Game of the Poultry World—the Birmingham Exhibition of 1855—has closed. In numbers, as compared with those of last year, the competing pens were as follows:—

	1854.	1855.
Fowls, Ducks, Geese, and Turkeys	1575	1559
Cottagers Poultry.....	33	48
Pigeons	137	201
	1745	1808

With regard to the quality of the birds exhibited, although we differ in opinion with the judges, when they say the classes “have never been equalled,” yet, beyond doubt, it was a show much above the average in the number of excellent specimens, and in almost every class good birds very generally preponderated. We will begin with recording the only serious objection we have to make to the show, namely, that the tenants of the lower pens did not compete on equal terms with those of the upper pens, owing to the great deficiency of light. This is the more to be regretted, because, with the exercise of a very little ingenuity, it might be remedied.

In *Golden-pencilled Hamburgs* one defect greatly prevailed in the stains upon the hackle; but the white ear-lobe was singularly well developed. That there is an onward movement in the class is testified by the fact, that young birds took the cup in preference to the old.

Among the *Golden-spangled Hamburgs* there was a happy absence of hen-tails, but the ear-lobe, so distinguishing the Hamburgs, was in this class too usually defective.

In the *Silver-pencilled Hamburgs* we have to warn their breeders that the combs are becoming too coarse and large.

Silver-spangled Hamburgs are getting too much colour; the backs of many, instead of being spangled, were entirely black. On the contrary, the tails of many of the cocks were perfectly spangled, even to the end of the sickle feathers.

The *Polands*, black, with white top-knots, were honestly shown, for there was no instance of a dressing of the top-knots. An excellent pen lost its chance of success by one of the hens having a deformed foot.

Of *Golden Polands* there were some very good pens; but white feathers still too often appeared in the top-knots, and the spangling of the cock's breasts was too often defective. The top-knots ought to be laced with a golden colour; black in the top-knot we consider very objectionable.

In the *Silver Polands*, the pen 271, belonging to the Rev. R. Greenall, was unqualifiedly excellent. The hens, perhaps, were rather better than the cock, though all were admirable in figure, marking, and top-knot.

The *Spanish* did not exhibit such evidence of progressing improvement as we expected. We should have liked to have seen more size in the chicken class. At the same time, there was almost an entire absence of inferior specimens.

The *Coloured Dorkings* were very satisfactory, both as to size and closeness of feather; and in the

White Dorkings we were very glad to notice a great improvement in both the size and substance of the cocks.

Buff Cochins were decidedly better than we have seen at other shows this year. We were glad to notice Mr. Sturgeon's name again in this class. One of his pens was very superior, especially the cock (No. 672), but it was disqualified, by metal rings being round one of the legs of each of the birds. Marks of any kind are justly prohibited. Of other Cochins, the *Partridge-coloured* were moderate, and the *White* very good; but of the *Black*, no more need be said, than that the first and second prizes were withheld in adults.

Of *Brahma Pootras* we entertain our formerly recorded opinions. Coarse birds cannot attain to general favour.

Among the single birds, pre-eminent among many excellent was Lady Chesterfield's *Coloured Dorking Cock*. It was sold for £15.

The *Spanish Cock* (903), belonging to Mr. Alfred Crawther, was highly meritorious. The *Game* and *Silver-pencilled Hamburg Cocks* were very good generally. The *Game* classes, especially the Black-breasted

Red, altogether were probably never equalled, whether we consider their matching, high condition, or figure.

Of *Malays*, we were glad to observe some very good specimens; though they are birds we do not admire. It is not generally known that the chickens between a Malay cock and Game hens are excellent for table.

Next we come to the Miscellaneous Class; and here we would ask, Why are not *Andalusians* shown as a variety of the Spanish; and the *Cuckoos* as of the Dorking family? In this class was one pen (1295) of very high-conditioned *Frizzled Fowls*. The only specimens of them we ever looked at with pleasure.

We will close our notes to-day, by expressing our very great satisfaction in observing not only the increased number, but the very improved quality, of the *Cottagers Pens*. Among them was one very superior pen of *Spanish* (1777, belonging to J. Beaumont), and in many others there were far better specimens than we previously remember. We hail this as another benefit conferred by this exhibition; and as several of the cottagers pens found purchasers, we have no doubt the numbers of exhibitors will annually increase.

JUDGES OF POULTRY.—The Rev. William Wriothlesley Wingfield, Gulval Vicarage, Penzance. Henry Hinxman, Esq., Durnford House, Salisbury. Mr. Thomas Challoner, Burnt Leys, Whitwell, near Worksop, Notts. The Rev. Robert Pulleine, The Rectory, Kirby Wiske, near Thirsk. George James Andrews, Esq., Dorchester. Mr. John Bailly, Mount Street, Grosvenor Square, London.

JUDGES OF PIGEONS.—T. J. Cottle, Esq., Pulteney Villa, Cheltenham, and Mr. Hale, Handsworth.

Class 1.—GOLDEN-PENCILLED HAMBURGH.—2. First, The Rev. T. G. M. Luckock, Upper Berwick House, near Shrewsbury. 7. Second, Mrs. William C. Worrall, Rice House, Knotty Ash, near Liverpool. 15. Third, Mr. Josiah B. Chune, Green Bank, Coalbrookdale, Shropshire. Commended.—5. Mr. William Tyler, Friday Bridge, Birmingham.

Class 2.—GOLDEN-PENCILLED HAMBURGH.—Chickens of 1855.—34. **SILVER CUP**, Mrs. William C. Worrall, Rice House, Knotty Ash, near Liverpool. 21. Second, Mr. John Worslev, Lower Clopton, Stratford-upon-Avon. 50. Third, Mr. Gilbert Greenall, jun., Grappenhall, near Warrington. Commended.—19. Mrs. William C. Worrall, Rice House, Knotty Ash, near Liverpool. 31. Mr. Robert Cheshyre Whiteway, Irwell House, Runcorn, Cheshire.

Class 3.—GOLDEN-SPANGLED HAMBURGH.—68. **SILVER CUP**, Mrs. Charles Horsfall, Duffield Bank House, near Derby. 73. Second, Mr. John Andrew, Waterhouses, near Ashton-under-Lyne. 71. Third, Mr. James Dixon, North Park, near Bradford.

Class 4.—GOLDEN-SPANGLED HAMBURGH.—Chickens of 1855.—84. First, Mr. James Dixon, North Park, near Bradford. 99. Second, Mr. James Bamford, Holmfirth, Huddersfield. 106. Third, Mr. John Hill, Selly Oak, Worcestershire.

Class 5.—SILVER-PENCILLED HAMBURGH.—126. First, Mrs. Dixon, North Park, near Bradford. 124. Second, Mr. Edward Archer, Malvern. 119. Third, Miss Mary Anne Tuley, Keighley, Yorkshire.

Class 6.—SILVER-PENCILLED HAMBURGH.—Chickens of 1855.—135. First, William Cox, Esq., Brailsford Hall, near Derby. 138. Second, Mr. E. Botham, Wexham Court, Slough. 148. Third, Mr. E. T. Archer, Malvern.

Class 7.—SILVER-SPANGLED HAMBURGH.—163. First, The Rev. T. G. M. Luckock, Upper Berwick House, near Shrewsbury. 167. Second, Miss Mary Anne Tuley, Keighley, Yorkshire. 166. Third, Miss Dixon, North Park, near Bradford. Commended.—179. Mr. Josiah B. Chune, Green Bank, Coalbrookdale, Shropshire.

Class 8.—SILVER-SPANGLED HAMBURGH.—Chickens of 1855.—198. First, Mrs. T. L. Fellowes, Beighton, Norfolk. 191. Second, Mr. William Mansfield Bill, Highter's Heath, King's Norton. 214. Third, Mr. Gilbert Greenall, jun., Grappenhall, near Warrington. Highly Commended.—199. Mr. David Henderson, Shuttleworth, Bury.

Class 9.—POLISH FOWL (Black, with White Crests).—219. First, Mr. George H. Perkins, Gothic Cottage, Moseley, near Birmingham. 234. Second, Mr. Thomas Pantton Edwards, Railway Station, Lyndhurst, Hampshire. 222. Third, Mr. E. B. Guest, Ivy House, Broadwas, Worcestershire. Highly Commended.—223. Mr. Joseph Conyers, Leeds. Commended.—225. Mr. Thomas Battye, Brown Hill, Upper Mill, Holmbridge, near Huddersfield.

Class 10.—POLISH FOWL (Black, with White Crests).—Chickens of 1855.—235. First, Mr. Thomas Battye, Brown Hill, Upper Mill, Holmbridge, near Huddersfield. 236. Second, Mr. Thomas Pantton Edwards, Railway Station, Lyndhurst, Hampshire. 237. Third, Miss Mary Bury, Drayton Villa, Belbroughton, near Stourbridge. Commended.—239. Mr. James Bamford, Victoria Bridge, Holmfirth, near Huddersfield. 240. Mr. Thomas Battye, Brown Hill, Upper Mill, Holmbridge, near Huddersfield.

Class 11.—POLISH FOWL (Golden).—241. First, Mrs. Charles Coleridge, Eton, Windsor. 249. Second, Mr. Joseph Conyers, 42, Boar Lane, Leeds. 242. Third, Miss Vivian, Singleton, Glamorganshire.

Class 12.—POLISH FOWL (Golden).—Chickens of 1855.—260. First, Mr. William Jeffery, Hedgerley, Gerrard's Cross, Buckinghamshire. 267. Second, Mr. John Lawson, Lidget Green, Bradford. 263. Third, John Mills, jun., Esq., Bisterne, Hampshire. Commended.—258. W. Graham Vivian, Esq., Singleton, Glamorganshire.

Class 13.—POLISH FOWL (Silver).—271. First, **SILVER CUP AND GOLD MEDAL**, The Rev. Richard Greenall, Grappenhall, Cheshire. 281. Second, Mr. S. T. Baker, Manor House, King's Road, Chelsea, London. 272. Third, Charles Edward Coleridge, Esq., Eton, Windsor. (The whole class commended.)

Class 14.—POLISH FOWL (Silver).—Chickens of 1855.—297. First, Mr. George Fell, Warrington. 282. Second, Mrs. G. C. Adkins, Edgbaston, near Birmingham. 286. Third, Miss Emily Breavington, Bath Road, Hounslow, Middlesex. (The class generally commended.)

Class 15.—POLISH FOWL (Of any other variety).—310. First, Mr. Thomas Dutton, Streatham Common, Surrey. 312. Second, Mr. Frederick Brown Rowland, Ramsbury, Wiltshire. (White.) 309. Third, W. Graham Vivian, Esq., Singleton, Glamorganshire. (White.)

Class 16.—POLISH FOWL (Of any other variety).—Chickens of 1855.—317. First, Charles Edward Coleridge, Esq., Eton, Windsor. (Second and third prizes withheld.)

Class 17.—SPANISH.—334. **SILVER CUP**, John S. Henry, Esq., Woodlands, Crumpsall, Manchester. 347. Second, Mr. H. D. Davies, Spring Grove House, Hounslow, Middlesex. 346. Third, Master Arthur D. Davies, Spring Grove House, Hounslow, Middlesex. Highly Commended.—380. Mr. Thomas Cole, Lord's Wood Road, Beech Lanes, Birmingham. 335. George Botham, Esq., Wexham Court, Slough. 350. Mr. William Plummer, Brislington, Bristol. Commended.—321. Mr. Richard Cox, Highfield Road, Edgbaston, Birmingham. 322. Mr. Edward Simons, Birmingham. 327. Mr. Thomas Cole, Lord's Wood Road, Beech Lanes, Birmingham. 329. Mr. Charles Jones, Birkenhead. 348. The Rev. Morton Shaw, Rougham Rectory, Bury St. Edmund's.

Class 18.—SPANISH.—Chickens of 1855.—414. First, Mr. H. D. Davies, Spring Grove House, Hounslow, Middlesex. 403. Second, Mr. William Wright Brundrit, Runcorn, Cheshire. 389. Third, The Rev. Stephen Donne, Oswestry, Shropshire. Highly Commended.—357. Miss Rosa Jane Davies, Spring Grove House, Hounslow, Middlesex. 366. Mr. Edward Simons, Birmingham. 391. Mr. G. A. Gelderd, Akrigg End, Kendal. Commended.—354. Mrs. Stow, Bredon, near Tewksbury. 396. Mr. Daniel Parsley, Rock Cottage, Stapleton Road, Bristol. (White-faced.) 415. Mr. William Plummer, Brislington, Bristol. 416. Mr. Benjamin Newham, 9, Court, Newtown Row, Birmingham.

Class 19.—DORKING (Coloured).—468. **SILVER CUP**, Mr. H. D. Davies, Spring Grove House, Hounslow, Middlesex. 419. Second, The Right Hon. Lord Robert Grosvenor, M.P., Moor Park, Rickmansworth. 439. Third, Mr. James Drewry, Newton Mount, Burton-upon-Trent. Highly Commended.—431. Mrs. Thomas Townley Parker, Astley Hall, Chorley, Lancashire. 436. Mr. Henry Donne, Oswestry. 452. Mr. James Drewry, Newton Mount, Burton-upon-Trent. 454. Mrs. William Wright, West Bank, Widnes, near Warrington, Lancashire. 458. Mrs. Donne, Oswestry. 464. Mr. John Copple, Eccleston, Prescot, Lancashire. 467. Mr. Thomas Ullock, Quarry Howe, Windermere. Commended.—434. C. Sanders, Esq., Coventry. 442. Mr. William Wright, West Bank, Widnes, near Warrington, Lancashire. 463. Mr. Thomas McCann, Graham House, Malvern. 466. Mr. Edward Lister, Cassia Lodge, near Northwich, Cheshire.

Class 20.—DORKING (Coloured).—Chickens of 1855.—587. First, Mr. William Wright, West Bank, Widnes, near Warrington, Lancashire. 502. Second, The Rev. James Boys, Rectory, Biddenden, Kent. 561. Third, Mr. Robert Loder, The Beeches, Crawley, Sussex. Highly Commended.—498. The Rev. John Hill, The Citadel, Hawkstone, Shrewsbury. 500. The Rev. Morton Shaw, Rougham Rectory, Bury St. Edmunds. 536. The Rev. Stephen Donne, Oswestry. 551. Mr. Daniel Harrison, Singleton Park, near Kendal. 567. Mr. William Wright, West Bank, Widnes, near Warrington, Lancashire. 582. Mrs. Donne, Oswestry. 586. Mrs. William Wright, West Bank, Widnes, near Warrington, Lancashire. 605. Mr. H. D. Davies, Spring Grove House, Hounslow, Middlesex. Commended.—470 and 478. The Right Hon. the Countess of Chesterfield, Bretby Hall, Burton-upon-Trent. 488. Miss Rosa Jane Davies, Spring Grove House, Hounslow, Middlesex. 493. Miss Agnes Whittington, Wootton Wawen, Henley-in-Arden, Warwickshire. 499. The Rev. Frederick Thursby, Abington Rectory, Northampton. 541. Mrs. Henry Smith, The Grove, Cropwell Butler, near Bingham, Nottinghamshire. 574. Mr. James Gelderd, Akrigg End, Kendal.

Class 21.—DORKING (White).—621. First, Mr. Joseph Jennens, Moseley, Birmingham. 615. Second, Mrs. Mills, Bisterne, Hampshire. 616. Third, Mr. Joseph Jennens, Moseley, Birmingham. Commended.—612. The Right Hon. the Countess of Dartmouth, Patshull, Al-brighton, Wolverhampton. 623. Mr. Nathaniel Antill, Portsea, Hampshire.

Class 22.—DORKING (White).—Chickens of 1855.—637. First, Mr. Joseph Clift, Dorking. 627. Second, Mrs. Mills, Bisterne, Hampshire. 625. Third, The Right Hon. the Countess of Dartmouth, Patshull, Al-brighton, Wolverhampton. Highly Commended.—628. Mrs. Farmer, Wheateley Hall, Tamworth. 631. Mr. George Barker, Madresfield, Worcestershire. Commended.—640. Mrs. Mills, Bisterne, Hampshire. 641. Mrs. Farmer, Wheateley Hall, Tamworth.

Class 23.—COCHIN-CHINA (Cinnamon and Buff).—679. **SILVER CUP**, Mr. Henry Donne, Oswestry. 655. Second, Mr. Thomas Burnett, Hutton, Preston, Lancashire. 614. Third, Mrs. Adkins, Edgbaston, Birmingham. Highly Commended.—646. The Hon. and Rev. T. H. Noel Hill, Berrington, Shrewsbury. 643. The Right Hon. Lord de Blaquier, Woodlands, Havant, Hampshire. (Silver Cinnamon.)

Class 24.—COCHIN-CHINA (Cinnamon and Buff).—Chickens of 1855.—689. First, The Rev. George Gilbert, Chedgrave, Norwich. 700. Second, Mr. Joseph Stock, Bourn Brook Hall, Worcestershire. 726. Third, Mr. Frederick Charles Steggall, Weymouth, Dorsetshire. Highly Commended.—693. Mr. Charles F. Allison, Friar's Place, Acton, Middlesex. 697. Mr. Joseph Busst, jun., Walsall. 720. Mrs. Henry Fookes, Whitechurch, Blandford, Dorsetshire. 736. Mr. Thomas Burnett, Hutton, Preston, Lancashire. 742. Mr. Thomas Stretch, Marsh Lane, Bootle, Liverpool. Commended.—690. The Rev. George Gilbert, Chedgrave, Norwich. 714. Mr. George C. Peters, Moseley, Birmingham.

Class 25.—COCHIN-CHINA (Brown and Partridge-feathered).—751. First, Mr. William Wanklyn, jun., Bury, Lancashire. 745. Second, Mr. G. C. Adkins, Edgbaston, Birmingham. 744. Third, Mrs. Hodson, North Petherton, Somersetshire. Highly Commended.—753. Mr. Charles Purnchard, Blunt's Hall, Haverhill, Suffolk.

Class 26.—COCHIN-CHINA (Brown and Partridge-feathered).—Chickens of 1855.—760. First, The Rev. Grenville F. Hodson, North Petherton, Somersetshire. 756. Second, Mrs. Herbert, Powick, near Worcester. 767. Third, Mr. James Cattell, Worcester Street, Birmingham.

Class 27.—COCHIN-CHINA (White).—775. First, Mr. Robert Chase, Moseley Road, Birmingham. 772. Second, Mrs. Herbert, Powick, near Worcester. 774. Third, Mr. Cyrus Clark, Street, Glastonbury.

Class 28.—COCHIN-CHINA (White).—Chickens of 1855.—789. First, Mrs. Herbert, Powick, near Worcester. 784. Second, Mr. Robert Chase, Moseley Road, Birmingham. 780. Third, The Rev. Grenville F. Hodson, North Petherton, Somersetshire.

Class 29.—COCHIN-CHINA (Black).—794. Third, Mr. Joseph Harrison, Selly Oak, Birmingham. (First and second prizes withheld.)

Class 30.—COCHIN-CHINA (Black).—Chickens of 1855.—796. Second, The Countess de Flahault, Tulhullen Castle, Kincardine, Perthshire. 798. Third, Mr. J. C. Westley, Wellington Road, Dudley. (First prize withheld.)

Class 31.—"BRAHMA POOTRA" FOWLS.—802. First, Master Arthur D. Davies, Spring Grove House, Hounslow, Middlesex. 801. Second, Mr. Edward Simons, Birmingham. 893. Third, Mr. James Aldridge Devenish, Weymouth. Commended.—800. Miss Elizabeth Watts, Monk House, Hampstead, Middlesex.

Class 32.—"BRAHMA POOTRA" FOWLS.—Chickens of 1855.—818. First, The Rev. George Calvert, Beeby, Leicestershire. 821. Second, Mr. Cookson Stephenson Floyd, Sands, Holmfirth, Yorkshire. 816. Third, Mr. James Aldridge Devenish, Weymouth. Highly Commended.—804. The Lady Evelyn Stanhope, Brethly Hall, Burton-upon-Trent. 806. Mrs. Botham, Wexham Court, Slough. 809. The Rev. George Calvert, Beeby, Leicestershire. Commended.—813. Mr. Charles F. Allison, Friar's Place, Acton, Middlesex.

CLASSES FOR SINGLE COCKS.

Class A.—DORKING.—824. First, The Right Hon. the Countess of Chesterfield, Brethly Hall, Burton-upon-Trent. 874. Second, Mr. William J. Drewry, Newton Mount, Burton-upon-Trent. Highly Commended.—827. Miss Rosa Jane Davies, Spring Grove House, Hounslow, Middlesex. (Coloured.) 842. The Rev. James Boys, Biddenden, Kent. 843. The Hon. and Rev. T. H. Noel Hill, Berrington, Shrewsbury. (Grey.) 805. George Botham, Esq., Wexham Court, Slough, Buckinghamshire. (Grey, Rose-combed.) 886. Mr. Henry Smith, The Grove, Cropwell Butler, Birmingham, Nottinghamshire. (Single-combed, Grey.)

Class B.—SPANISH.—903. First, Mr. Alfred Crawther, 3, Hertford Terrace, Haggerstone, London. 912. Second, Mr. Benjamin Newham, 9 Court, Newtown Row, Birmingham. Highly Commended.—892. Mrs. Edward Simons, Birmingham. 893. Master Herbert Campbell Davies, Spring Grove House, Hounslow, Middlesex. 904. Mr. Francis Leedam, Burton-upon-Trent.

Class C.—COCHIN-CHINA.—935. First, Mr. Thomas Bridges, Croydon, Surrey. (Partridge-feathered.) 930. Second, Mr. G. A. Gelderd, Akkrigg End, Kendal. Highly Commended.—915. Mrs. Thomas Stretch, Marsh Lane, Bootle, near Liverpool. (Buff.)

Class D.—BRAHMA POOTRA.—938. First, Mr. Christopher Dain, Southampton. 941. Second, Master Herbert C. Davies, Spring Grove House, Hounslow, Middlesex.

Class E.—PENCILLED HAMBURGH.—951. First, The Rev. Thomas Lyon Fellowes, Beighton Rectory, Acle, Norfolk. (Silver.) 969. Second, Mr. Robert Cheshire Whiteway, Irwell House, Runcorn, Cheshire. (Second.) Highly Commended.—962. Mr. William Sanday, Holme Pierrepont. (Golden.) 972. Mr. Edward Archer, Malvern. (Silver.)

Class F.—SPANGLED HAMBURGH.—977. First, Mr. T. B. Wright, Great Barr, Staffordshire. (Silver.) 980. Second, Mr. T. B. Wright, Great Barr, Staffordshire. (Silver.)

Class G.—GAME.—1016. First, William Cox, Esq., Brailsford Hall, Derby. (Black-breasted Red.) 1011. Second, Mr. Nathan Nathaniel Dyer, Bredon, Tewkesbury. (Black-breasted.) Highly Commended.—993. Master John Lowe, Whitmore House, Birmingham. 995. Mr. H. Worrall, Knotty Ash House, Liverpool. (Duckwing.) (The class very meritorious.)

Class H.—POLISH.—1035. First, Mr. Wheeler Baker, Manor House, King's Road, Chelsea, London. 1044. Second, Robert H. Bush, Esq., Littlefield House, Clifton, Bristol. (Golden.) Commended.—1043. Mr. John Hill, Selly Oak, Birmingham. (Silver-spangled.)

Class 33.—GAME FOWL (White and Piles).—1056. First, Mr. John Lane, Goodrest, Warwick. 1058. Second, Mr. David Joseph Arnold, Tamworth. 1052. Third, Mr. Henry Snow, High-street, Birmingham.

Class 34.—GAME FOWL (White and Piles).—Chickens of 1855.—1075. First, Mr. Henry Sheild, 23, Lacey Terrace, Gravesend, Kent. 1066. Second, Miss Baker, Dordon Hall, near Atherstone. 1076. Third, Mr. John Lane, Goodrest, Warwick. (The whole class commended.)

Class 35.—GAME FOWL (Black-breasted and other Reds).—1109. SILVER CUP, Mr. William Holt, King's Norton, near Birmingham. 1097. Second, Master John Lowe, Whitmore House, near Birmingham. 1117. Third, Mr. David Joseph Arnold, Tamworth. Highly Commended.—1096. Mr. Edward Lowe, Cumberford Mill, near Tamworth. (The class generally commended.)

Class 36.—GAME FOWL (Black-breasted and other Reds).—Chickens of 1855.—1160. First, William Cox, Esq., Brailsford Hall, near Derby. 1173. Second, Mr. Nathan Nathaniel Dyer, Bredon, near Tewkesbury. 1177. Third, Edward H. France, Esq., Ham Hill, near Worcester. Commended.—1181. Mr. G. W. Dawson, Selly Oak, near Birmingham. 1148. Mr. George Smith, 53, Aston-street, Birmingham. 1152. Mr. Edward Glover, Otton Green, Solihull. 1184. Mr. William Buncombe, Taunton, Somersetshire.

Class 37.—GAME FOWL (Blacks, and Brassy-winged, except Greys).—1202. First, Mr. James Thomas Wilson, Redditch. 1191. Second, Mr. John Worsey, Lower Clopton, Stratford-upon-Avon. 1197. Third, Mr. Richard Field, Bragg's Farm, Shirley-street, near Birmingham.

Class 38.—GAME FOWL (Blacks, and Brassy-winged, except Greys).—Chickens of 1855.—1204. First, Mr. Charles Hopkins, Newton Regis, near Tamworth. 1213. Second, Mr. William Vickerman Drake, Lockwood, near Huddersfield. 1223. Third, Mr. Nathan Nathaniel Dyer, Bredon, near Tewkesbury. Commended.—1220. Mr. Richard Field, Bragg's Farm, Shirley-street, Birmingham.

Class 39.—GAME FOWL (Duckwings, and other Greys, and Blues).—1232. First, Mr. George Rendall, Ryde, Isle of Wight. 1238. Second, Mr. John Brundrit, Runcorn, Cheshire. 1233. Third, Mr. John Wright, Hulland Hall, Ashbourne, Derbyshire.

Class 40.—GAME FOWL (Duckwings, and other Greys, and Blues).—Chickens of 1855.—1256. First, Mr. Edward H. Strange, Amptill, Bedfordshire. 1261. Second, Mr. George Rendall, Ryde, Isle of Wight. 1263. Third, Mr. John Wright, Hulland House, Ashbourne, Derbyshire. Commended.—1248. Mr. William Holt, King's Norton, near Birmingham. 1254. Mr. John Rogers, King's Norton, Worcestershire.

Class 41.—MALAYS.—1271. First, Mr. James Leighton, 183, High-street, Cheltenham. 1270. Second, Mr. John Buncombe, Wellington, Somersetshire. 1269. Third, Mr. James Leighton, 183, High-street, Cheltenham.

Class 42.—MALAYS.—Chickens of 1855.—1279. First, Mr. James Leighton, 183, High-street, Cheltenham. 1282. Second, Mr. William Manfield, jun., Dorchester. 1278. Third, Mr. John James Fox, Devizes, Wiltshire. Commended.—1274. The Rev. Thomas Lyon Fellowes, Beighton Rectory, Acle, Norfolk. 1276. Mr. James Leighton, 183, High-street, Cheltenham.

Class 43.—FOR ANY OTHER DISTINCT BREED.—1299. First, Mr. John Faulkner, Brethly, near Burton-upon-Trent. (Cuckoo.) 1306. First, Mr. William Dawson, Hopton Mirfield, Yorkshire. (Serai Ta-cook, or "The Sultan's Fowl.") 1285. Second, Mr. John Lilly, Hagley Road, Edgbaston. (Andalusian.) 1301. Second, Miss Watts, Monk Barns, Hampstead. (Calcutta Jungle Fowl, sent from India.) 1294. Third, Miss Vivian, Singleton, Glamorganshire. (Frizzled.)

Class 44.—BANTAMS (Gold-laced).—1321. First, Mr. Edward Hewitt, Eden Cottage, Sparkbrook, near Birmingham. (Sebright.) 1234. Second, Mr. Thomas Hincks, Penn Fields, Wolverhampton. Highly Commended.—1311. Miss Martha Hewitt, Eden Cottage, Sparkbrook, Birmingham. (Sebright.) 1312. The Rev. John Hill, The Citadel, Hawkstone, Shrewsbury. Commended.—1315. Mr. Harry Wildman, 101, High Street, Birmingham. 1322. Mr. Matthew Leno, jun., Harpenden, Hertfordshire.

Class 45.—BANTAMS (Silver-laced).—1346. SILVER CUP, Mr. Matthew Leno, jun., Harpenden, Hertfordshire. 1352. Second, Mr. Matthew Leno, jun. Highly Commended.—1344. Mr. Edward Hewitt, Eden Cottage, Sparkbrook, near Birmingham. (Sebright.) 1349. Mr. Henry D. Palmer, Southtown, Great Yarmouth. Commended.—1350. Mr. Harry Wildman, 101, High Street, Birmingham. 1336. Miss Martha Hewitt, Eden Cottage, Sparkbrook, Birmingham. (Sebright.) 1343. Mr. Richard Taylor, Olton End House, Solihull, near Birmingham.

Class 46.—BANTAMS (White).—1372. First, Mr. William Elkington, Lichfield. 1367. Second, William Yate Hunt, Esq., Yew Tree, Belbroughton. Highly Commended.—1358. Miss Eliza Mary Sturge, Edgbaston, Birmingham. Commended.—1361. Mrs. G. C. Adkins, Edgbaston, near Birmingham. 1364. Mrs. G. W. Moss, Liverpool.

Class 47.—BANTAMS (Black).—1378. First, The Rev. Grenville F. Hodson, North Petherton, Somersetshire. 1381. Second, Mr. Joseph John Horton, 233, Bradford Street, Birmingham. Highly Commended.—1375. Mr. Elkington, Lichfield. 1380. Mr. Richard Hawksley, jun., Southwell, Nottinghamshire. 1386. Mr. Gilbert W. Moss, Liverpool. Commended.—1387. Mr. Joseph John Horton, 233, Bradford Street, Birmingham.

Class 48.—BANTAMS (Any other variety).—1393. First, Mr. William Saunders, Egypt Cottage, Cowes, Isle of Wight. (Game, Black-breasted Red.) 1396. Second, Mr. W. S. Forrest, Eagle Cliff, Greenhithe, Kent. (Duckwing Game.) Highly Commended.—1392. Mrs. Elkington, Lichfield. (Game.) 1398. Mr. William Saunders, Egypt Cottage, Cowes, Isle of Wight. (Game.)

Class 49.—GESE (White).—1403. First, Mr. Henry Ambler, Watkinson Hall, Halifax, Yorkshire. (White Embden.) 1406. Second, Miss Edwards, Lyndhurst, Hampshire. 1400. Third, Miss Baker, Dordon Hall, near Atherstone. (Lower Furness White.)

Class 50.—GESE (Grey and Mottled).—1413. First, Francis Edwards, Esq., Bulstrode Park, Buckinghamshire. 1416. Second, Mr. Daniel Harrison, Singleton Park, near Kendal. 1409. Third, Mrs. Henry Fookes, Whitechurch, near Blandford, Dorsetshire.

Class 51.—DUCKS (White Aylesbury).—1457. First, Mr. John Weston,

Oxford Road, Aylesbury. 1431. Second, Mrs. B. J. Ford, Ide, Exeter. 1442. Third, Master Arthur D. Davies, Spring Grove House, Haunslow, Middlesex. Highly Commended.—1445. Master Herbert Campbell Davies, Spring Grove House, Hounslow, Middlesex. 1454. Mr. John K. Fowler, Prebendal Farm, Aylesbury. Commended.—1428. Mrs. Joseph Conyers, Leeds. 1430. Mrs. Burnett, Hutton, Preston, Lancashire. 1432. Mrs. Stow, Bredon, Tewkesbury. 1433. Mrs. Jennens, Moseley, Birmingham. 1459. Mr. John Weston, Oxford Road, Aylesbury.

Class 52.—DUCKS (Rouen).—1490. First, Mr. Theed William Pearce Bromham Road, Bedford. 1464. Second, Mrs. David Henderson, Top-o'-th'-Lee, Shuttleworth, Bury, Lancashire. 1477. Third, Mr. Jonathan Williamson, Whitfield House, Walton, near Liverpool. Highly Commended.—1474. Mr. William Bownass, Ullock's Royal Hotel, Bowness, Windermere. 1489. Mr. John Harrison, Singleton Park, near Kendal. Commended.—1484. Mr. Henry Worrall, Knotty Ash House, Liverpool. 1495. Mr. John Weston, Oxford Road, Aylesbury. 1496. Mr. Richard Hill, Chesham Lane, Bury, Lancashire.

Class 53.—DUCKS (Any other variety).—1510. First, Miss Isabella Mary Worrall, Knotty Ash House, Liverpool. (Call.) 1503. Second Mrs. Tennant, Needwood House, Burton-upon-Trent. (Labrador.) 1516. Third, Mr. Charles Ballance, 5, Mount Terrace, Taunton, Somersetshire. (Buenos Ayres.) Highly Commended.—1517. Mr. Charles Edwards, Brockley Court, Bristol. (Buenos Ayres.) 1518. Mr. John Shaekel, Bleenheim House, Small Heath, Birmingham. (Call.) 1526. Mr. Edmund Herbert, Powick, near Worcester. (Black East Indian.)

Class 54.—TURKEYS.—1540. First, Mrs. Henry Fookes, Whitechurch, near Blandford, Dorsetshire. 1544. Second, Mr. Richard Meire, Cound Arbour, near Shrewsbury. (Cambridgeshire.) 1539. Third, Mr. Charles Edwards, Brockley Court, near Bristol. (Cambridgeshire.) Highly Commended.—1533. The Right Hon. the Countess of Chesterfield, Brethly Hall, Burton-upon-Trent. 1538. Mr. Joseph Meire, Berrington, near Shrewsbury.

Class 55.—TURKEYS.—1552. First, The Rev. Henry Owen, Heveningham Rectory, near Yoxford, Suffolk. (Wild American.) 1559. Second, Mr. Richard Meire, Cound Arbour, near Shrewsbury. (Cambridgeshire.) 1550. Third, Mr. Richard Meire, Cound Arbour, near Shrewsbury. (Cambridgeshire.)

The Judges of the Poultry Department have abstained from any commendatory notice of the different classes until the conclusion of their work.

They now deem it their duty to record that, with the exception of the Black Cochins, they have never seen the Show equalled.

PIGEONS.

SILVER CUP CLASS.

1580, 1583.—The SILVER CUP, Mr. Harrison Weir, Lyndhurst Road, Peckham, Surrey. (Blue Beard Tumbler and White Fantail.) Highly Commended.—1560. Miss Clara Adkins, West House, Edgbaston, Birmingham. (Carrier.) 1563. Miss Clara Adkins, West House, Edgbaston, Birmingham. (Pouter.) 1572. Mr. Edward A. Lingard, Birmingham. (Carrier.) 1575. Mr. Edward A. Lingard. (Pouter.) Commended.—1576. Mr. Thomas Henry Faulkner, 3, Coleman Street, St. George's, Camberwell, London. (Carrier.) 1579. Mr. Thomas Henry Faulkner, London. (Bald Head.) 1596. Mr. Edward L. Corker, 11, Queen Street, Cheapside, London. (Carrier.) Commended.—1599. Mr. Edward L. Corker. (Pouter.)

Class 1.—CARRIERS.—1603, 1600. First and Second, Messrs. Siddons and Sons, Laurel Terrace, Aston, near Birmingham. Commended.—1602. Mr. Thomas Henry Faulkner, 3, Coleman Street, St. George's, Camberwell, near London. 1604. Mr. Edward L. Corker, 11, Queen Street, Cheapside, London.

Class 2.—ALMOND TUMBLERS.—1614. First, Mr. Edward R. Maddeford, Staines, Middlesex. 1610. Second, Dr. Rogers, Honiton, Devonshire. Highly Commended.—1615. Mr. James Smith, 9, Sale Street, Paddington, London. 1616. Mr. John Tindall, jun., Ewerby, Sleaford, Lincolnshire. Commended.—1617. W. L. Channing, Esq., Heavitree, Exeter.

Class 3.—BALDS OR BEARDS.—1627. First, Mr. John William Edge, Aston New Town, Birmingham. 1621. Second, Mr. Charles Richard Titterton, Snow Hill, Birmingham. Highly Commended.—1619. Mr. Francis Adkins, Edgbaston, Birmingham. Commended.—1630. Mr. Jones Percivall, 13, Queen's Row, Walworth, London.

Class 4.—MOTTLED TUMBLERS.—1634. First, Mr. Jones Percivall, 13, Queen's Row, Walworth, London. 1633. Second, Mr. John Tindall, jun., Ewerby, Sleaford, Lincolnshire. Commended.—1632. W. L. Channing, Esq., Heavitree, Exeter.

Class 5.—OWLS.—1641. First, Mr. William Titterton, Snow Hill, Birmingham. 1636. Second, Mr. William Henry Simpson, Islington, Birmingham. Highly Commended.—1648. W. L. Channing, Esq., Heavitree Exeter. Commended.—1637. Master John Edwards Mapplebeck, 105, Moseley Road, Birmingham. 1647. Mr. Frank Bottom, Regent Street, Nottingham. (Black.)

Class 6.—NUNS.—1651. First, Miss Clara Adkins, West House, Edgbaston, near Birmingham. 1655. Second, Mr. John William Edge, Aston New Town, Birmingham. Commended.—1657. Mr. Edward Lingard, Birmingham.

Class 7.—TURBITS.—1661. First, Mr. Harrison Weir, Lyndhurst Road, Peckham, Surrey. (Blue.) 1665. Second, Mr. William Titterton, Snow Hill, Birmingham.

Class 8.—ARCHANGELS.—1670. First, Mr. John Child, Sherbourne Road, Birmingham. 1668. Second, Miss Clara Adkins, West House, Edgbaston, Birmingham. Commended.—1671. Mr. Francis Adkins, Edgbaston, Birmingham.

Class 9.—JACOBINES.—1675. First, Mrs. Francis Adkins, Edgbaston, Birmingham. 1683. Second, Mr. Arthur Pressdee, Belgrave Street,

Balsall Heath, Birmingham. (Yellow.) Highly Commended.—1677. Mr. Henry Child, jun., Sherbourne Road, Birmingham.

Class 10.—FANTAILS.—1689. First, Master Joseph H. Cattell, Worcester Street, Birmingham. (White.) 1684. Second, Mrs. Simons, Birmingham. (White.)

Class 11.—TRUMPETERS.—1704. Second, Mr. Charles Richard Titterton, Snow Hill, Birmingham. (First prize withheld.)

Class 12.—POUTERS OR CROPPERS.—1712. First, Mr. John Tindall, jun., Ewerby, Sleaford, Lincolnshire. 1715. Second, Mr. James Smith, 9, Sale Street, Paddington, London.

Class 13.—BARBES.—1725. First, Mr. Jones Percivall, 13, Queen's Row, Walworth, London. 1717. Second, Mrs. Francis Adkins, Edgbaston, Birmingham. Commended.—1716. Mrs. Simons, Birmingham. 1720. Mr. Harrison Weir, Lyndhurst Road, Peckham, Surrey. (Black.)

Class 14.—RUNTS.—1727. First, Mr. George Lingard, Selly Grove, Bristol Road, Birmingham. 1728. Second, Mr. John Tindall, jun., Ewerby, Sleaford, Lincolnshire.

Class 15.—DRAGOONS.—1738. First, Mr. Edward Barber, Berkswell, Warwickshire. (Cross from Carrier.) 1737. Second, Mr. Edward R. Maddeford, Staines, Middlesex. Commended.—1731. Mr. John Percivall, Clent Villa, Ilarborne, Birmingham. 1733. Mr. Edward R. Maddeford, Staines, Middlesex. 1734. Mr. William Henry Simpson, Islington, Birmingham.

Class 16.—ANY OTHER NEW OR DISTINCT VARIETY.—1750. First, Mr. Edward R. Maddeford, Staines, Middlesex. (German Letz or Victoria.) 1758. Second, Mr. Jones Percivall, 13, Queen's Row, Walworth, London. (Magpies.) Commended.—1740. Miss D. Vivian, Singleton, Glamorganshire. (Red Breasts.) 1742. Mrs. Baker, Manor House, King's Road, Chelsea, London. (Frillback.) 1749. Master John Edwards Mapplebeck, 105, Moseley Road, Birmingham. (Helmets.) 1751. Mr. William Henry Simpson, Islington, Birmingham. (Yellow Brunswicks.) (The whole class meritorious.)

COTTAGERS' POULTRY.

1777. First, John Beaumont, Batley Carr Road, Dewsbury. (Spanish.) 1772. Second, John Martin, Claines, Worcestershire. (Silver-pencilled Hamburgs.) 1799. Second, Joseph Heyes, Eccleston, Chorley, Lancashire. (Geese.) 1789. Third, John Palmer, Clifton Road, Balsall Heath, Birmingham. (White Cochins.) 1793. Third, William Martin Marriott, Boothroyd, Dewsbury. (Game.) 1806. Third, John Palmer, Clifton Road, Balsall Heath, near Birmingham. (Aylesbury Ducks.) Highly Commended.—1775. Thomas Mold, jun., Middleton Cheney, Banbury. (Silver Poland.) Commended.—1766. John Martin, Claines, Worcestershire. (Gold-pencilled Hamburg.) 1785. Charles Cheshire, King's Heath, Birmingham. (Buff Cochins.) 1790. John Colcy, Orton-on-the-Hill. (Game.) 1791. W. Martin Marriott, Boothroyd, Dewsbury. (Game.) 1797. John Barnes, Heath-Street, Winson Green, Birmingham. (Gold-laced Bantams.) 1800. Joseph Heyes, Eccleston, Chorley, Lancashire. (Geese.) 1801. Charles Cheshire, King's Heath, near Birmingham. (Aylesbury Ducks.) 1808. Isaiah Reeves, Over End, West Bromwich. (White Trumpeter Pigeons.)

MELKSHAM AGRICULTURAL SOCIETY'S POULTRY SHOW.

HELD in the Town Hall, Melksham, on the 4th and 5th of December.

JUDGE.—Charles Ballance, Esq., Taunton.

COCHIN-CHINA.—1. First, Mr. T. Eacott, Devizes. (Buff.) 2. Second, Mr. T. Keable, Rowdefield Farm, Devizes.

DORKING.—6. First, Rev. H. G. Baily, Swindon. (Second prize withheld, combs not matching.)

SPANISH.—10. First, J. R. Rodhard, Esq., Aldwick Court, Langford. 12. Second, Rev. H. G. Baily, Swindon. Highly Commended.—11. Mr. T. Eacott, Devizes.

MALAY.—13. First, Mr. J. J. Fox, Devizes.

GAME FOWL.—14. First, J. R. Rodhard, Esq., Aldwick Court, Langford. 15. Second, Mr. J. J. Fox, Devizes. (Black-breasted.) Highly Commended.—16. Mr. J. J. Fox, Devizes. (Duckwing.)

GOLDEN-SPANGLED HAMBURGH.—18 and 19. First and Second, Rev. C. J. Down, Semington. Highly Commended.—17. Rev. C. J. Down, Semington.

GOLDEN-PENCILLED HAMBURGH.—22. First, Mr. J. J. Fox, Devizes. 21. Second, Mr. T. Keable, Rowdefield Farm, Devizes.

SILVER-SPANGLED HAMBURGH.—23. First, Rev. C. J. Down, Semington. 26. Second, Mrs. Pocock, Beanaere. Commended.—26*. Mr. S. Hayward, Trowbridge.

SILVER-PENCILLED HAMBURGH.—27 and 28. First and Second, Mr. T. Eacott, Devizes.

GOLDEN-SPANGLED POLAND.—32. First, Mr. J. J. Fox, Devizes. 31. Second, Thomas Richards, Esq., Clay Close House, Westbury.

SILVER-SPANGLED POLAND.—34. First, Thomas Richards, Esq., Clay Close House, Westbury. 33. Second, Mr. C. G. Moule, Melksham. Commended.—37. Mr. W. Higgins, Chippenham.

BLACK POLANDS (with White Topknot).—38. First, Mr. A. J. Bennett, Odd Down, Bath.

GOLDEN-LACED BANTAMS.—39. First, Mr. J. J. Fox, Devizes. (Second prize withheld.)

SILVER-LACED BANTAMS.—42. First, Mr. J. J. Fox, Devizes.

BLACK BANTAMS.—45. First, Mr. J. J. Fox, Devizes. 43. Second, J. R. Rodbard, Esq., Aldwick Court, Langford. Commended.—44. Rev. F. P. Methuen, Allcannings.

WHITE BANTAMS.—49. First, Rev. F. P. Methuen, Allcannings. 48. Second, Rev. F. P. Methuen, Allcannings. Commended.—47. Mr. A. B. Smith, Melksham. (White Silky Japan.)

ANY OTHER VARIETY.—55. First, Mr. Joshua Whitaker, Bratton. (Pheasant Malay.) 51. Second, Mr. J. Dark, Broughton Gifford. (Pheasant Dorking.) Highly Commended.—53. Mr. J. Dark, Broughton Gifford. (Barn-door.) Commended.—54. Mr. Joshua Whitaker, Bratton. (Barn-door.)

CHICKENS OF 1855.—*Cochin-China, Buff, Cinnamon, or Partridge*.—57. Prize, J. R. Rodbard, Esq., Aldwick Court, Langford. 59. Prize, J. R. Rodbard, Esq., Aldwick Court, Langford. (White.) *Dorking, Grey or Speckled*.—61. Prize, Rev. W. Fisher, Poulshot. (Speckled.) The Judge strongly reprehends the exhibition of birds in the same pen when the combs do not match. *Dorking, White*.—62. Prize, Miss Anne Wilcox, Nailsea Court, Bristol. *Spanish*.—64. Prize, J. R. Rodbard, Esq., Aldwick Court, Langford. Highly Commended.—68. Mr. R. Smith, Shaw House. *Malay*.—70. Prize and extra Prize, Mr. J. J. Fox, Devizes. *Game*.—71. Prize, J. R. Rodbard, Esq., Aldwick Court, Langford. *Golden-spangled Hamburg*.—74. Prize and Exhibition Prize for the best Pen of Chickens, Rev. C. J. Down, Semington. Highly Commended.—75. Rev. C. J. Down, Semington. *Golden-pencilled Hamburg*.—77. Prize, Mr. J. A. Bennett, Odd Down, Bath. Commended.—76. Mr. J. J. Fox, Devizes. *Silver-spangled Hamburg*.—79. Prize, Charles C. Templar, Esq., Leeds. Commended.—78. Mr. Charles Steeds, Trowbridge. *Silver-pencilled Hamburg*.—81. Prize, Mr. Thomas Facott, Devizes. *Golden Poland*.—83*. Prize, Mr. H. N. King, Melksham. Commended.—83. Mr. J. J. Fox, Devizes. *Silver Poland*.—85. Prize, J. C. Weguelin, Esq., Bowerhill Lodge, Melksham. *Black, with White Topknots*.—86. Prize, Mr. A. J. Bennett, Odd Down, Bath. *Any other Variety*.—90*. Prize, Rev. W. Fisher, Poulshot. (Shanghai Bantams.) Commended.—89. Mr. J. Dark, Broughton. Pheasant Dorking.)

TURKEYS.—93. First, John E. Hayward, Esq., Trowbridge. 92. Second, Mr. J. Dark, Broughton Gifford.

GEESE.—94. First, Mr. A. Beaven, Melksham. 95. Second, Mr. A. Beaven, Melksham.

DUCKS (Aylesbury).—99. First, Rev. C. J. Down, Semington. 102. Second, Mr. W. Higgins, Chippenham. Highly Commended.—104. Mr. J. R. King, Melksham.

DUCKS (Rouen and Lincoln).—105. Second, Mr. A. Beaven, Melksham. (Rouen.) (First prize withheld.)

GUINEA FOWL.—107 and 108. First and Second, J. R. Rodbard, Esq., Aldwick Court, Langford.

ORNAMENTAL POULTRY.—111. First, Mr. H. Hooper, Shaw. (Peacock and Peahen.) 109. Second, Mr. C. Beaven, Rowden, Chippenham. (Chinese Geese.)

MISTAKES AT THE BEDFORD POULTRY SHOW.

I AM induced to request you to allow me space in your columns to correct an error in your report of the Bedford Poultry Show, and to offer an explanation of the mistake to which you have alluded. You state that more than eighty pens were excluded; now the number was less than forty, including eight pens which arrived after the show had opened to the public, on Wednesday morning the 7th of November. The committee regret that any fowls should have arrived too late for competition, but I must state that proper attention to the printed instructions on the certificate of entry would have prevented this unpleasant occurrence.

There were 112 exhibitors who entered for our Show, and out of this number six only sent their birds too late, so that the regulations were properly understood by the great majority of exhibitors. When the prize list was issued, it was intended to have the exhibition open on Tuesday afternoon, but, from the number of applications for schedules, it was considered there would be too large a show to admit of the prizes being awarded and the prize list printed in time to admit the public on that day; and notice was given on all the forms of entry, and by advertisements in THE COTTAGE GARDENER, and other newspapers, that "all Poultry and Pigeons must be in the place of Exhibition by Monday, November the 5th." Now, as it was absolutely necessary for exhibitors to inform themselves of the days on which the show would be held, it was natural to suppose that their attention would be called to all the information contained in the same paper, as the days of exhibition were not named on the prize list. I repeat, that had proper attention been paid to this by exhibitors, no mistake would have happened. In reference to your statement about the numbers of pens entered, I wish to observe that there were nearly 500 entries.

—JOHN T. [ROLT ALLEN, *Honorary Secretary to the Beds Poultry Association*.

CHAPTERS FROM THE TRISTRAPEDIA.

No. I.

'Tis an odd perversity in this human nature of ours, that we seldom value those blessings which are common—at least, till we have lost them; as, for instance, health, pure air, pure water, &c. We poultry amateurs are no exception; at least, I fear that we do not sufficiently appreciate *our own* peculiar blessing or advantage—viz., *our Poultry Chronicle*.

Where should we have been, when our old *Poultry Chronicle* foundered, if the proprietors of THE COTTAGE GARDENER had not come forward and supplied us with another ship? Verily, as the jockies say of the "distanced" horses of the race, we should have been "nowhere." To recount the advantages—yea the necessity—of having a periodical specially devoted to our interests, would be to repeat a thrice-told tale; whether we look at such a Journal as a means of communicating knowledge and experience, or as in asking for such information, when we, ourselves, need it; whether it be the advantage of having a recognised record, where all that relates to official doing is registered—such as the time of holding exhibitions, and so on. Again, whether it be as a medium for making known our wishes to the poultry world, that we are desirous of parting with, or of obtaining, any particular fowls; but I will not proceed further with my catalogue of advantages—'tis superfluous.

My present object is, to stir up the zeal of amateurs, to induce them to bring their own shares of knowledge to the general stock. Let us have, as we so easily may have, a weekly Chronicle, teeming with interest. There are questions to be asked; doubts to be cleared up; difficulties to be overcome; experience to be communicated; and papers to be written. There is no need of fine writing; indeed, such would be greatly out of place; but let each modest contributor (and real worth is always modest) reflect, that he is writing to *us*—to persons who are willing and anxious to be interested in all that concerns *our* fancy; that we are all taking a pleasant ride together—on hobby-horses of the same make and shape; and that, really, a little chat on the road, as we jog on together, would be vastly agreeable.

For my own part, my dear readers, I am determined to have my own say—so look to it. Anything is better than a silent, hum-drum life; and if any taciturn member of the fancy have to complain of my pushing him along, treading on his heel, or pulling at his jerkin, depend upon it, I shall do it in such a frolicsome, Shandeyana humour, that he himself shall "gather up his face into a smile," and, I trust, retaliate:—I shall have drawn him out, and that will be something.—TRISTRAM SHANDY, *Hull*.

LONDON MARKETS.—DECEMBER 17TH.

COVENT GARDEN.

The severity of the weather during the past week has somewhat shortened the supplies, particularly of vegetables; and many sorts, such as *Broccoli* and late *Cauliflower*, are considerably advanced in price. Fruit continues a good supply for the season, and there are now some very fine parcels of *Guernsey Chaumontel Pears*, *Glou Morceau*, *Jean de Witte*, and, on the common stalls, *Bishop's Thumbs*. *Grapes* and *Pine Apples* are sufficient for the demand, and of good quality. *Newtown Pippins* are plentiful, and *Golden Knobs* have made their appearance. *Oranges* are plentiful, but scarcely fit for use, except those called *Autumn Oranges*. *Filberts* are very plentiful. *Flowers* are abundant, and consist of *Roses*, *Azaleas*, *Violets*, *Chrysanthemums*, *Chinese Primroses*, *Camellias*, *Erica gracilis*, *Mignonette*, *Cinerarias*, *Epiphyllums*, and *Scarlet Geraniums*. Preparations for Christmas are now in progress, and the supply of evergreens, such as *Holly*, *Spruce Firs*, for Christmas trees, and *Mistletoe*, is plentiful.

FRUIT.

Apples, kitchen, per bushel	2s. to 4s.	Raspberries	—
" dessert	4s. ,, 6s.	Strawberries, per pottle	—
Pears	4s. ,, 8s.	Oranges, per 100	4s. ,, 10s.
Peaches, per doz.....	5s. ,, 8s.	Lemons	6s. ,, 12s.
Nectarines, per doz...	—	Almonds, per lb.....	2s. ,, —
Plums, per sieve	4s. ,, 8s.	Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
Pine-apples, per lb....	4s. ,, 6s.	" Cobs, ditto ..	60s. ,, 70s.
Grapes, per lb.....	1s. ,, 6s.	" Barcelona, per bushel	20s. ,, 22s.
Foreign Melons, each	2s. ,, 4s.	Nuts, Brazil, per bushel	12s. ,, 14s.
Figs	—	Walnuts, per 1000 ..	9s. ,, 12s.
Gooseberries, per qt.	—	Chestnuts	—
Currants	—		

COVENT GARDEN—Continued.

VEGETABLES.

Cabbages, per doz. . .	9d. to 1s.
" Red, per doz. . .	2s. , 4s.
Cauliflowers, per doz. 3s. , 6s.	
Broccoli per bble. . .	10d. , 1s. 3d.
Savoy.	—
Greens, per dozen	
bunches	2s. , 3s.
Spinach, per sieve. . .	1s. , 2s.
Beans	—
French Beans, per	
half sieve	—
Scarlet Runners . . .	1s. 6d. , 3s.
Peas, per bushel . . .	3s. , 5s.
Carrots, per bunch . .	4d. , 6d.
Parsnips, per doz. . .	6d. , 9d.
Beet, per doz.	1s. , 1s. 6d.
Potatoes, per cwt. . .	3s. , 6s.
Turnips, per bunch . .	2d. , 3d.
Onions, young, per	
bunch	1d. , 2d.
Leeks, per bunch . . .	2d. , 3d.
Garlic, per lb.	6d. , 8d.
Shallots, per lb. . . .	4d. , 6d.
Horseradish, per	
bundle	1s. 6d. , 2s. 6d.

Lettuce, Cos, per	
score	6d. , 1s. 6d.
" Cabbage.	6d. , 8d.
Endive, per score . .	1s. , 1s. 6d.
Celery, per bunch. . .	8d. , 1s.
Radishes, Turnip, per	
dozen bunches . . .	1s. , 1s. 6d.
Water Cresses, per	
dozen bunches . . .	6d. , 9d.
Small Salad, per	
punnet.	2d. , 3d.
Artichokes, each . . .	3d. , 6d.
Asparagus, per bundle	
Sca-kale, per punnet	—
Rhubarb, per bundle	
Cucumbers, each . . .	3d. , 8d.
Vegetable Marrow, . .	
per dozen	6d. , 1s.
Tomatoes, per punnet	1s. , 2s. 6d.
Mushrooms, per pottle	1s. 6d. , 2s.
HERBS.	
Basil, per bunch . . .	4d. to 6d.
Marjoram, per bunch .	6d. , 9d.
Fennel, per bunch . .	2d. , 3d.
Savory, per bunch . .	2d. , 3d.
Thyme, per bunch . .	2d. , 3d.
Parsley, per bunch . .	2d. , 3d.
Mint, per bunch . . .	2d. , 4d.

GRAIN AND SEED.

FRIDAY, Dec. 14.—The arrivals are good of Irish Oats, and there are 10,000 quarters of Wheat expected from abroad, with 15,000 barrels of Flour. Wheat, is about 1s. dearer than on Monday. Barley, for inferior sorts, remains a dull trade. Oats are held for Wednesday's terms, but the buyers operate slowly. Beans and White Peas 1s. to 2s. higher. In other grain no change. Flour as on Monday.

WHEAT.

Kent and Essex, red,	
per qr.	79s. to 81s.
Ditto, white	87s. , 88s.
Norfolk and Suffolk. .	74s. , 78s.
Dantzic	88s. , 94s.
Rostock	78s. , 89s.
Odessa	70s. , 72s.
American	88s. , 92s.

BARLEY.

Malting	42s. to 44s.
Grinding and Distil-	
ling	38s. , 40s.
Chevalier	42s. , 44s.

OATS.

Scotch, feed	34s. to 36s.
English	26s. , 27s.
Irish	30s. , 32s.
Dutch Broo	29s. , 30s.
Danish	30s. , 32s.
Russian	26s. , 29s.

BEANS.

Harrow	48s. to 52s.
Pigeon	50s. , 54s.
Tick.	44s. , 46s.

PEAS.

Boiling, per qr.	53s. to 56s.
Common.	43s. , 45s.
Grey.	48s. , 50s.
Maple	48s. , 50s.

SEEDS.

Turnip, White, per	
bushel	—
Swede	—
Rape	84s. , 86s.
Linseed, sowing, qr. .	80s. , 84s.
" crushing	70s. , 72s.
Clover, English, redcwt	60s. , 68s.
" Foreign do.	52s. , 57s.
" White	68s. , 73s.
Trefoil.	28s. , 32s.
Rye, per qr.	52s. , 54s.
Tares	46s. , 52s.
Winter, bushel . . .	8s. , 9s.
Canary, per qr.	64s. , 72s.
Hemp	54s. , 57s.

Linseed Cake, per

ton.	£11 to £12 10s.
Rape Cake	£6 10s. , £6 15s.
Indian Corn	47s. , 50s.

HOPS.

BOROUGH MARKET, MONDAY, DEC. 10.—We have had a fair demand during the past week for all Hops of good colour and quality at about the same currency. For low and inferior descriptions there is scarcely any inquiry.

FRIDAY, DEC. 14.—Our market remains without any material alteration from last week. Fine samples with quality and colour fully maintain their value, and there is a moderate demand for the best descriptions of healthy brown Hops. Mid. and East Kents, 60s. 90s. to 112s.; Weald of Kents, 56s. 76s. to 90s.; Sussex Pockets, 50s. 75s. to 84s.

HAY AND STRAW.

Clover, 1st cut per	
load	110s. to 140s.
Ditto, 2nd cut	90s. , 130s.
Meadow Hay	90s. , 130s.
Rowan	80s. , 90s.
Straw, flail	30s. , 36s.
Ditto, machine	28s. , 30s.

POTATO.

SOUTHWARK WATERSIDE.—DEC. 10.—The supply of damaged and inferior qualities is somewhat reduced, but the stock on hand is sufficiently heavy to check any immediate advance, although we have an improved inquiry for best sound samples. Kent and Essex Regents, 85s. to 90s.; ditto Shaws, 75s. to 80s.; York Regents, 100s. to 110s.; Lincolnshire Regents, 85s. to 90s.; Wisbeach and Cambridge Regents, 85s. to 90s.; Bedford Regents, 95s. to 100s.; ditto Shaws, 80s. to 85s.; Norfolk Regents, 80s. to 85s.; ditto Whites, 80s.; Scotch Regents (East Lothian), 80s. to 90s.; ditto (Red Mould), 90s. to 100s.; ditto (Perth and Fife), 70s. to 80s.; ditto (North Country), 80s. to 85s.; Orkney Reds (East Lothian, nominal), to 90s.; ditto ditto (Red Mould,

nominal), 90s. to 95s.; Scotch Cups (Perth and Fife, nominal), 75s. to 80s.; ditto (North Country, nominal), 70s. to 80s.; Irish Kemps and Clusters, 70s. to 80s.; ditto White Rocks, 80s.; ditto common Whites, 80s. per ton.

MEAT.

Beef, inferior, per	
8lbs.	3s. 4d. to 3s. 8d.
Do. middling.	3s. 10d. to 4s.
Do. prime	4s. 2d. to 4s. 4d.
Mutton, inferior 3s. 4d. to 3s. 8d.	
Mutton, middling 3s. 10d. to 4s. 4d.	
Do. prime	4s. 6d. to 4s. 10d.
Veal	3s. 10d. to 4s. 10d.
Pork, large	4s. 8d. to 5s.
Ditto, small.	4s. 4d. to 5s. 4d.

POULTRY.

The market has been moderately supplied during the week, and the change of weather towards the end presented that increase of prices which is generally the precursor of Christmas.

Large Turkeys. . . .	12s. to 18s. each.
Small Ditto 5s. 6d. to 9s. 6d. . .	
Large Fowls.	4s. 6d. to 6s. . .
Smaller do.	3s. 3d. to 4s. . .
Chicken	2s. 3d. to 2s. 9d. . .
Geese.	6s. to 8s. . .
Pheasants 3s. 3d. to 3s. 9d. . .	
Partridges 2s. 3d. to 2s. 6d. . .	
Hares	3s. to 3s. 3d. . .
Woodcock	3s. to 3s. 3d. . .
Snipe	1s. 3d. to 1s. 4d. each.
G. Plover.	9d. to 1s. . .
Wild Duck 2s. 3d. to 2s. 6d. . .	
Widgeon	1s. 6d. to 1s. 9d. . .
Teal	9d. to 1s. . .
Rabbits	1s. 4d. to 1s. 5d. . .
Wild do.	10d. to 1s. . .
Pigeons	10d. to 1s. . .
Larks, per doz. 10d. to 1s. 3d. . .	

PROVISIONS.

BUTTER.—Cwt.

Dorset, fine	104s. to 108s.
Do. middling.	90s. , 96s.
Fresh, per doz. lbs. . .	12s. , 13s.
Friesland	103s. , 112s.
Kiel	94s. , 98s.
Carlow	102s. , 106s.
Waterford	98s. , 102s.
Cork	98s. , 102s.
Limerick	100s. , 102s.
Sligo	94s. , 102s.

CHEESE.—Cwt.

Cheshire, fine	70s. to 84s.
Gloucestershire, dble. 60s. , 76s.	
Ditto, single	74s. , 90s.
Somerset	70s. , 76s.
Wiltshire, loaf	68s. , 78s.
Ditto, double.	72s. , 78s.
Ditto, thin	54s. , 64s.
Ditto, pines	72s. , —
Berkley, thin	62s. , 66s.

BACON.—Cwt.

Wiltshire, dried . . .	80s. to 84s.
Waterford	59s. , 62s.

HAMS.—Cwt.

York, new	80s. to 90s.
Westmoreland	72s. , 76s.
Irish.	82s. , 90s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11½d, the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Teds	1s. 2s. to 1s. 3d.
Ditto Teds and	
Ewes	1s. 1d. to 1s. 2d.
Half-bred Hog-	
gets	1s. 3d. to 1s. 3½d.
Do. Wethers	1s. to 1s. 2d.
Kent fleeces	1s. 1d. , 1s. 2d.
Leicester fleeces. . .	1s. , 1s. 1½d.
Long, heavy do. . . .	11d. to 1s.
Combing skins . . .	10½d. to 1s. 1d.
Flannel wool.	1s. 1d. to 1s. 2½d.
Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Nimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

*** We request that no one will write to the departmental writers of THE COTTAGE GARDENER. It gives them unjustifiable trouble and expense. All communications should be addressed "To the Editor of The Cottage Gardener, 20, Paternoster Row, London."

SHREWSBURY POULTRY SHOW.—"Having received many communications respecting the late Poultry Exhibition at Shrewsbury, allow me to state, through the pages of your widely-diffused periodical, that though my name appears in the printed catalogue, I was not myself present at the awarding of any of the premiums, having declined the appointment from causes that I had previously explained in writing to the Hon. Sec., but which it is unnecessary for me on this occasion to recapitulate.—EDWARD HEWITT."

NAMES OF PEARS (A Subscriber).—The proper name for Brown Beurré is *not* Beurré Diel, but the Pear you sent us under the name of Brown Beurré is Beurré Diel. Brown Beurré is a distinct variety. The Pear you frequently hear called Burgundy, and Bergamy, by old people, is not Gansel's Bergamot, but the *Autumn Bergamot*. You do not say what size your Beurré Diel is; but if not too large to root-prune easily, it will not be too large to transplant. Put it on an east or west wall.

PEAR (J. C. Muckross, Killarney).—Your parcel came to the office with a charge of 2s. upon it, and was refused. You did not put sufficient stamps on it.

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WEEKLY CALENDAR.

D M	D W	DECEMBER 25—31, 1855.	WEATHER NEAR LONDON IN 1853.					Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.							
25	TU	CHRISTMAS DAY.	29.778—29.528	54—33	S.W.	04	8 a 8	53 a 3	5 38	16	bef. 11	359	
26	W	ST. STEPHEN.	29.818—29.722	46—32	W.	—	8	53	6 53	17	0 40	360	
27	TH	ST. JOHN EVANGELIST.	29.948—29.811	41—25	N.W.	01	8	54	8 7	18	1 10	361	
28	F	INNOCENTS.	30.431—30.313	40—26	N.W.	—	8	55	9 18	19	1 40	362	
29	S	Marsh Titmouse sings.	30.443—30.296	41—34	S.W.	01	9	56	10 29	20	2 9	363	
30	SUN	1 SUNDAY AFTER CHRISTMAS.	30.444—30.354	47—39	S.W.	—	9	57	11 38	21	2 38	364	
31	M		30.328—30.101	47—35	N.W.	—	9	58	morn.	☾	3 7	365	

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-eight years, the average highest and lowest temperatures of these days are 42.8°, and 31.2°, respectively. The greatest heat, 58°, occurred on the 25th, in 1827; and the lowest cold, 8°, on the 28th, in 1853. During the period 133 days were fine, and on 63 rain fell.

BLECHNUM BOREALE.



THE English names by which this Fern is known are *Rough Spleenwort*, *Northern Hard Fern*, *Rough Milt-waste*, and *Great or Wild Spleenwort*. Its main root is black, scaly, tufted, and furnished with numerous stont rootlets. The *fronds* have a smooth and polished stalk, but the leafless portion at the bottom is purple, shaggy, and sealy. They are numerous, narrow-spear-head-shaped, tapering to a point at each end. The *barren fronds*, from eight to twelve inches high, are outermost, evergreen, and become prostrate. They have numerous, close, parallel, spear-head-shaped, entire, single-ribbed *leaflets*, rather blunt, but with a minute point

The *fertile fronds*, always erect, and from twelve to twenty-four inches high, are surrounded by the barren fronds, and are not so numerous, but are taller, and their *leaflets* are much narrower, more pointed, more spread out at their base, and more distant from each other than those on the barren fronds. Their edges are recurved. The stalk mostly purple. The *fructification* is in a narrow line on each side of the mid-rib of each leaflet, and between two side veins which run slantingly upwards about half way to the edge of the leaflet, turn abruptly, and then run parallel with the mid-rib. The cover (*indusium*) is a whitish membrane, separating at the side next the rib, and exposing the very numerous crowded brown spores, each bound with a jointed ring. These are ripe about the end of August. All the fronds are dark green. Sometimes a frond is partly fertile and partly barren.

Varieties of this Fern occasionally occur. In one, the leaflets are shortened, and assume the form of scollops with an irregularly toothed edge. In another variety the end of the frond is forked.

It is easily cultivated if moved from its native place early in April, with abundance of soil about the roots, so that these are disturbed but little, and if it is planted in some well-drained place, as rockwork, where it is shaded from much sun, and supplied regularly and abundantly with moisture. The soil for it is best composed of one part peat, one part leaf-mould, and two parts stiffish loam well mixed together. It will not thrive either in a Wardian case or in a greenhouse.

It is found wild in various soils and places—in open heathy grounds, as well as in moist shady hedges.

It has been found in St. Faith's Newton woods near Norwich; at Hainsford in Norfolk; in lanes about Acton Park, near Birmingham; at the bottom of the thicket in the vale of Dudcombe, near Painswick; abundantly on Hampstead Heath; in lanes about Bromsgrove Lickey, Worcestershire; at Trossacks, Loch Katrine; in Anglesea; in various parts of Hertfordshire, and of the northern counties. Mr. Francis says that it is spread throughout England and Scotland, and in Ireland,—especially in the counties of Wicklow and Clare. It ascends to 700 feet above the sea's level in Cumberland, to 800 in Forfarshire, and much higher in the Cairngorum Mountains in Aberdeenshire, where it probably attains to elevations of 1,200 or 1,300 feet.

It is of common occurrence in Denmark, Sweden.

Norway, North-west America, and even in the Canary Islands, and at the Cape of Good Hope.

The first author who mentions this as a native of Great Britain is Gerard, who says it "groweth in most parts of England, but especially on a heath by London, called Hampstead Heath, where it groweth in great abundance." In his "Herbal" as well as in Parkinson's, there is a very good wood-cut of this Fern. The last-named author says, "this is called *Fox Fern* in many places of this land." Dodoens, and all the other herbalists we have named, state that it "is very good against the hardness, stoppings, and swellings of the *Spleen* or *Melt*," and it is to this opinion that the *Spleen-worts*, or *Meltwastes*, owe their generic name.

By more modern botanists it has been wildly named *Osmunda spicant*, *Blechnum spicant*, *Lomaria spicant*, *Asplenium spicant*, and *Acrostichum spicant*. *Spicant* is its name in the German language, in which it was first named in modern times. It is curious that Linnæus, in total neglect of his own characteristics of the two genera *Osmunda* and *Blechnum*, placed this Fern in the genus first-named. This mistake was first pointed out by Haller, but it was not until 1793, in the "Memoirs of the Turin Royal Academy of Sciences," that this Fern was correctly placed among the *Blechnums*.

THE SYSTEMATIC ARRANGEMENT OF MIXED BORDERS.

If any of our readers have seen a good plan for planting a newly-made border, on the mixed system, or could tell of the proper management of an old one, so planted, this would be a good time to let the rest of us have the benefit of such experience. The leaves are all down now, and are raked off; the ground is, or will soon, be pointed over, or dug, leaving no traces of how the plants stood last summer, or, at least, the greater part of them, and showing no indications of how they are likely to turn out during the incoming season—the coast is clear for turning over a new leaf. Besides this clearance in the flower-garden and pleasure-ground, there must be a great extent of newly-made borders and beds, every year, within the range of our circulation; these must soon be planted some way or another, if they are intended to be in a fit state to be seen next summer. But, how to plant a mixed border for the first time, or how to manage an old one so as to make the best of it for the greatest length of time, is all but a mystery to nineteen gardeners out of twenty, and to ninety-nine amateurs out of a hundred.

As a gardener, my place would fall in between twelve and eighteen, for there must be a dozen out of the score who could make the arrangement better than your humble servant, but, as an amateur, I think I am more successful at this difficult part of our calling. The worst of it is, that the literature of the mixed bed and border is among the poorest of all the subjects treated of in our language. Only a glimpse here, and a snatch there, without system; wanting a beginning, and without an end; a shapeless mass, out of which the best writer among us could hardly make out a decent calendar for each of five months out of the twelve.

Here, then, is an open field, into which all of us, who can, may send in our spare stock, of this or that kind, to feed and fatten upon a full crop of fair criticism, until some great dealer in mixed matters comes round and picks up the prime lots for some mixture in his line, for

the use and benefit of the rising generation; and to show you how the subject may begin, I shall here give an account of how I have managed my own mixed border, for showing off next spring; and also how I saw a newly-made border, this last autumn, so planted on the mixed principle, as to promise to be a source of great interest for some years to come.

The person who first planted an edging of a different plant to a flower-bed laid the foundation and the way for the highest style of planting flower-gardens, and very probably without being aware of any great merit in his design. If that bed is a circle, all we have to do, in imagination, in order to comprehend the meaning of this first step, is to cut the circle in two, and stretch out the two halves on a plain surface, running down the edging plant on one side only of the broad, flat surface now occupied by the stretched-out circle—so to speak; here we have a large "piece" of colouring,—call it a picture, or a piece of cloth; the latter will give us the better idea of what is meant to be represented. The edging plant, which is, and always should be, of a different colour, will stand for the selvage. Here we have two beginnings represented by the "piece," the first step in planting a flower-bed, or garden, and that to patterns and designs worked out in cloths and other tissues; the first is a recent invention, the second is one of the oldest of the arts—it was well known before "a coat of many colours" could have been made for Joseph.

The art of making designs in fabrics, like other early arts, went through the ups and downs of many ages, including the dark ages, and the revival of modern times, until, at last, we have them exhibited in Crystal Palaces as perfect as the skill of our days can make them. Can we say as much of our designs with bedding-out plants? Certainly not; for out of our most recent patterns, a coat of many colours could hardly be made fit to be seen on a shepherd-boy. It was only five years since that THE COTTAGE GARDENER gave out a pattern for a "sash" riband, and already the chief planters in this country have reduced our pattern down to the level of a turnip-field on the "Scotch system;" so many straight rows, or curved rows, according to the outline of the piece, every shade and colour having the same value, the same force, and the same space of ground in each row; and if that is not how they do with turnip-fields, how do they do them? Why, sow them broad-east to be sure; give every turnip so much space, and the big ones do for the little ones, just as big plants reduce the effect of little plants in "mixed borders," which brings me to this very border which I saw planted last autumn, according to a very different pattern.

Without giving the exact length and width of this new border, I shall say it was a long border and a wide border; it was not quite straight, yet not far out of a straight line. There is a good walk all along on one side of it, with a box edging, and the lawn and parts of the pleasure-ground "butted" in on the other side, or back of the border; one could see all parts of this back of the border from walks and vistas in other parts of the ground, but not the flowers, in the mixed style, with which the border is planted, save a few Hollyhocks and other tall plants at the back. The effect of the planting of the border could not be seen until one turn brought you in to either end of it; but once "upon it," from this or that end, the whole length could be seen at one view. Now, you can hardly misunderstand the reason, for the style of planting could not be seen till you were on the walk in front of it. To be a mixed border, in the true sense of gardening language, it must be planted with bulbs, herbaceous plants, and shrubs, both evergreens and deciduous, and there should be spaces left purposely for tall, half tall, and low annuals; all this has been done in this instance, and all the plants have

been "planted on the line," as gardeners say; that is, beginning next the walk, we have one line of box for the edging, then the first row of plants is marked out with the garden line the whole way, the second row the same, and so on to the back of the border; every row is finished before the line is moved back for the next behind it; no plant was planted by guess, or by the eye. The first advantage of this system of planting mixed borders is, that in the dead of winter, when not a quarter of the plants can be seen, or known where they stand, the whole border can be as safely dug over as if all the plants were up and growing. The garden book, or a stake thrust down almost out of sight, at each end of all the rows, will tell where the plants are, and a handy man might be safely trusted to dig this border any day during the winter. In the kitchen-garden they put down two stakes at the ends of the alleys between Asparagus beds, or one at each end of the rows when the Asparagus is grown in single rows; and that plan is safe enough for working among Asparagus in winter, and they, the Asparagus, require as much attention as flower-borders.

I do not know how many, or what kinds of herbaceous plants and bulbs have been planted in this border; I only know the principles, and I shall tell them presently. If I could give a list of all the plants it might do more harm than good, as there is no solid or settled opinion about herbaceous plants. The first row is only two inches from the Box edging, and is planted with three kinds of bulbs. A double and a single *Snowdrop*, and a Dogstooth Violet (*Erithronium dens-canis*), every third plant, all the way, is different from the rest, and by the time the Snowdrop is going out of bloom the Dogstooth Violet is coming in. There are three bulbs of Snowdrop put together, but only one of the Dogstooth Violet, owing to its being dearer. Three inches is the utmost distance from patch to patch, so that the whole is one continuous line when the plants are in bloom. The next line is entirely of *Crocuses* of different kinds; they are so closely planted, that when they are in bloom they will make another row without a break. The *Crocuses* stand just six inches from the Box. The third row is one continuous band of *Polyanthuses* and *Auriculas*—the flowers of my childhood; two plants of the former, and one of the latter, and so on, all the way. This row is one foot from the Box edging, which is more distant than these pretty flowers used to stand from the edge when they used to be in patches; but they need the space to save them from being run over by the leaves of the *Crocus*. The next four feet of the border is occupied with three rows of *Herbaceous plants* and *bulbs*, not one of which is higher than three feet, and the next row of *Hybrid Perpetual Roses* on their own roots, without any mixture among them—the *Roses* standing thirty inches apart; but when the bushes are grown and in bloom, they will form almost a full line without a break; but the difference in the style of growth and relative height of the plants will do away with any stiffness of appearance. Behind the *Roses*, and thirty inches from them, is a row of *Herbaceous plants*, which grow higher than three feet, and spare intervals are left in this row for annuals, such as *Coreopsis* of sorts, *Malope grandiflora*, both purple and white, *Erysimum Peroffskianum* and the like.

Then comes a row of stronger *Roses* of the hybrid Chinas and Bourbons, with a few strong hybrid perpetuals, as *Mrs. Elliot*, *Madame Laffay*, and so forth. Some of them are on their own roots, and some on low 6-inch stocks; in this row, spaces are left open for annual *Lupines*, as *Mutabilis*, *Crookshankii*, *Hartwegii*, and *pubescens*; also patches of Sweet Peas, and *Princesses' Feathers*, and a few fancy *Dahlias*. Then a row of *Hollyhocks*; but from the last row of *Roses* to the *Hollyhocks*, a stranger could hardly make out the plants

were in rows at all, as the whole interlace one another, as it were. Behind the *Hollyhocks* is a fringe of *Ever-green shrubs*, some high, some low, and some lower; not very close together, nor regularly planted as to distances or straightness of outline, so as to keep down stiffness when viewed from the lawn side.

I consider this a vast improvement on any mixed border I ever saw; but a greater improvement is to be told in a very few words. *The whole space between the Box edging and the first row of Roses is now, or will, very shortly, be double planted.*

This is done with the following annuals, to flower altogether next May, when the front of the border will look something like bedding-out planting; the first row stands in the interval between the *Snowdrops* and the *Crocuses*, and is a row of *Limnanthes Douglasii*, a little white flower; then *Nemophila insignis* and *maculata*, mixed in three rows; after that, one row of *Silene pendula alba*; then a row of the pink *Silene pendula*, followed by a row of *Collinsia bicolor*; and the last row of mixed purple and white *Clarkia pulchella*, all from seeds sown, or self-sown, last August and September, and all planted so close together as to form one long bed of the gayest May flowers, while the mixed herbaceous plants are rising to succeed them. When the annuals are cleared off, others, which will be sown about the middle of April, will be planted out in patches with spare pot-plants of the bedding kinds. Altogether, this seems to me an excellent arrangement, and a new move for the mixed border. Of course, beds could be furnished after the same model.

D. BEATON.

AIR-GIVING.

"X. Y. Z." has a greenhouse seven feet wide, five feet high in front, and nine feet high at back; top sashes slide for air; front air admitted by shutters one foot high, under each light, at the top of the front-wall, where it joins the roof-sashes, and also by shutters five inches high, and eighteen inches long, at the base, or nearly so, of the front wall, opposite each light; the flue passing along the front of the house within a few inches of these openings, so that when air is admitted there it comes into contact at once with the sides of the flue—a matter of importance in very severe weather. The house also faces the east, and is exposed to colder winds than one with a southern aspect. The house is principally filled with soft-wooded plants, *Salvias*, *Geraniums*, *Primroses*, *Cinerarias*, &c., some in flower, and some not, and the following questions are proposed for solution, the answer to which may be more than individually interesting.

1st. "Thermometer outside at 40°, clouds, cold winds. Will the lower ventilators be sufficient for the health of the plants in this case, with the top sashes open? The *Cinerarias* have their leaves a little curled, though fine plants. Is this from the cold winds?" Is there no trace of green fly on the *Cinerarias*? because if there is, that will soon produce the curled appearance. It is also easily produced when the plants have been removed from a low, moist temperature, such as from a cold pit, or frame, to an airy house with a drier atmosphere and a higher temperature. *Cinerarias* will keep very well for a considerable time in a moistish atmosphere from 35° to 40°, but to flower well they require from 45° to 50°. Supposing that you moved them from a position of the former to one of the latter, there will be a risk of some of the larger leaves curling and shrivelling, merely because the higher temperature, and, most likely, the drier atmosphere, will cause a more abundant transpiration from the foliage than what the plants were accustomed to, and extra waterings will not at once remedy the inconvenience. In moving such succulent-leaved

plants from one such position to another, it is advisable to choose a shady day, and either to set the plants on damp moss, or diminish transpiration from the foliage, by giving them frequent slight syringings during the day, so that the evaporation may be supplied from moisture outside rather than from the inside of the foliage.

I introduce this matter here, in this side-wind way, because it is extremely difficult to convince young gardeners and amateurs of its importance, and because it has a distinct bearing upon the question of air giving. Sometime ago, I was asked to look at a little greenhouse, in December, and though the enthusiastic owner had watered every plant, and was watering them again, still, do what he would, many of the plants would hang their heads in a complaining mood. The weather had been dull for some time; a sharp frost had taken place during the night; that had been duly guarded against, and no more, as the flue was at 11 o'clock next to cold. The sun being bright, much air was given to keep down the temperature, though the outside air was dry enough to crack the lips of beauty, and chop the hands of us rough workmen, and the thermometer showed a number of degrees below the freezing point on the north side of a wall. The sashes were immediately pulled up close, the plants syringed all over with water about 55°, and in an hour the plants were all right. About two o'clock, a little air was given for about half-an-hour, to allow the mist-heated moist air to escape, and, from that day to this, this amateur thinks twice before he admits large quantities of dry, frosty air among his plants, even though the sun be shining brightly. He will rather let the house rise 10° more than usual, will see that the fires are extinguished early, when it is likely to be a bright morning, so that fire-heat and sun-heat shall not meet together; and in extreme cases will either shade, or throw water on the outside of the glass, and slightly sprinkle the plants within, in preference to rattling down the sashes by feet or yards. A few inches opening for several hours, will, in such circumstances, be sufficient. The cold air that enters at the point of the roof will thus be heated and moistened by passing through the hottest and moistest air that is escaping, and will thus be softened before reaching the plants. If there is any heat in the flues, situated as the one is under consideration, less air still will be wanted at the top of the house, as the fresh air will be mellified by coming at once in contact with the flue; and though thus somewhat dried, moisture may be communicated to it by evaporating pans placed along the flue. Except in dry, frosty weather, such evaporating mediums will not often be required in greenhouses in winter.

In the circumstances referred to by our correspondent, moving the top sashes for two or three inches, and the bottom ventilators in front much the same for several hours, from nine till two, would keep the plants healthy. If the sun came out, more should be given; if the wind was stormy, a little less, though none of the things mentioned would suffer at 40°. In such cloudy weather there will not be a great difference from the inside and outside temperature when no fire is used. Where growing and blooming are desired, firing should be resorted to to keep the house at an average of 45° at night, and from that to 50° during the day, and if at all sunny 5° to 10°. More will do harm; and when fire is used during winter, air should be given mostly from the openings opposite the heating medium. If heat is applied, there is no danger of a stagnant atmosphere, with but very little or no opening in the top sashes. A little, however, should be admitted, unless very cold.

2nd, "Bright sun, very cold wind; in fact, March weather—Is it better to keep down the temperature by shading, than to give much air?"

Decidedly so. But with proper precautions this shading will very seldom be required. No directions will ever supply the place of thoughtfulness and general intelligence. Descend into the very minutiae; tell every little secret about every conceivable process; still we can never make gardening a mere work of routine. Rules must be varied according to circumstances. It must be left to the good sense and the general intelligence of the subject possessed by the operator, to vary his practice according to circumstances. The giving of fresh air is so continually insisted upon, that young beginners conceive they can never admit too much of it, and a clear sky and sunshine in winter are eagerly seized upon as good opportunities for increasing the quantity. Now, supposing that the outside temperature in the shade ranged from 40° to 50°, and the air was mild, and not in violent commotion by winds, and the sun was shining brightly, though with the oblique rays it presents us in winter, for all such plants as those referred to it would hardly be possible to give too much air. A little might be left on even at night were we sure of the weather continuing mild. In fact, were it not for the expense of keeping up the heat, the plants have quite as much need, if not more need, rather, of fresh air at night than during the day. The evils of drawn, weakly growth are produced from a highish temperature and a dull, dark atmosphere, rather than from a little more heat when the sun is shining. Sun-heat, while it expands, will also consolidate growth.

When we speak, therefore, of keeping such and such plants in a certain average temperature at night, and another during the day, we wish it to be clearly understood that these averages are not to apply to extremes. For instance, we wish a house of greenhouse plants to be from 45° to 50° at night in winter. A very severe frost comes; the thermometer falls 20° below freezing, and is likely to continue; and, therefore, rather than resort to very large fires, the heat from which will rob pots and plants alike of their moisture, we would rather be content to let the house sink within safety limits for 5° or 8° below the usual average; and, in extreme cases, we would, if we could, use some mode of covering part of the glass, in preference to having large fires. The plants will relish this much better than being excited to elongate and part with their peculiar juices, merely in obedience to a dry heat, which, unlike the sun's rays, gives them nothing in return. Then glance at the necessary treatment next day. The first thing an intelligent, thinking person will do, will be to examine his outside thermometer, in contrast with the previous evening, look upon the sky, and endeavour to prognosticate what the day will be. Then examine the thermometer in the house, and feel with his hands the heating medium, and thence judge what, if any, attention the furnace may require. We know that very often all this is just inverted, and that, without ever thinking of any of these matters, the furnace is at once set a roaring with a large fire; the idea that such a course may be alike mischievous and wasteful never forming the least matter of consideration. "Sure it is cold enough for anything; and ain't it safest to warm the house well; and don't I know what is wanted well enough, without touching pipes and flues, and straining my eyesight in reading the figures on these annoying, bothering glasses." And need we wonder at the result at times? True, in very severe weather, and from the fact that the cold is generally most intense for about half-an-hour or so before and after sunrise, and the house is not much above the point of safety, it may be advisable to light the fire early in the morning, but not to throw in great heat until the weather can be prognosticated.

For instance; we have a black frost, the air is enough to cut you in two, and the dark-lead appearance of the atmosphere says, as plainly as possible, there will be no

sun seen to-day. It were better to give no air, in such circumstances, and just enough of fire-heat to raise the temperature a few degrees higher than at night, though that was considerably below the average day temperature in fine weather. If the pipes, or flues, are heated so much as to raise the house considerably, then air may be admitted for a short time opposite the heating medium; and this might be done if the frost and such weather was long continued.

Suppose, however, that instead of this you have, in unison with a keen, dry, frosty air, a bright, cloudless sun, and that from a roaring morning's fire you have a strong heat in your pipes or flues, then, indeed, you must either shade (though you may have had little of the sun for weeks), or you must let in the dried air pretty freely; and thus, from that air and the dry heat combined, present the plants with a double chance of becoming parched and wizened, blasted and shrivelled. On the other hand, having arrived at the conclusion that the sun would be tolerably, or very, bright during the day, and, therefore, having secured merely as much heat in your flue, or pipes, as would carry you safely over the coldest part of the morning, then, by the time the sun was powerful on the house, the heating medium would be cooled, and, therefore, comparatively speaking, the sun's rays would exercise little influence,—not more than a very little air at bottom and top; where the air at bottom comes in contact with the flue, or at top alone, where no such facilities exist, would be sufficient to prevent the house rising more than from 5° to 10° above the average, which would be safer, in such circumstances, than admitting such dry, cold air freely. Much would also depend on giving the little air at an early period just when the house was about the usual average. A very little then would be sufficient, and no such extremes would be experienced as allowing the house to rise fast first, and then let air freely in. If the sun was very bright, in such cases, in November, December, January, and February, a slight syringing over the plants will alike weaken the force of the sun's rays and lessen the temperature. It will only be in extreme cases, and when the day turns out contrary to our expectations, or when a strong fire-heat and a bright sun meet, that our correspondent's system of shading will be chiefly required. In all such cases of keen, dry, frosty air, outside shading will be preferable to a free admission of such air. Once get convinced that sun-heat *alone*, in the winter months, is comparatively beneficial rather than otherwise, and a few degrees higher temperature during the day in bright frosty weather will not be at all alarming. In such a house facing the east, what air is given will require to be given and taken away earlier than in a house facing the south. So much do we value the heat from the sun, that unless in very mild weather,—at least, whenever frost was apprehended,—we would shut up the houses facing the south close by two o'clock, or earlier; and then the sun-heat enclosed would so far economise the fuel heap, and do the work much better.

3rd. "Foggy weather. Is it safe to open the lower ventilators in this case?" What X. Y. Z. wants to know, is, whether it is good gardening to trust to the lower ventilators almost always from October to April with such plants?

The answers here must be short, as my space is nearly full; but considerable attention has already been paid to all these matters. I have no means of giving such bottom-air at present, myself, but I know well its importance at all times for keeping the whole air of the house in a state of motion. It is peculiarly desirable, when, as in this case, it comes in contact with a heating medium before being diffused into the house. Front air may thus often be given, when otherwise it must be withheld. As already stated, the air that passes in at

narrow openings of the top-sashes passes through the warmest and moistest air of the house before it can get down to the plants. Evaporating pans on the flue, or passing through a moist medium, would also thus moisten and heat the front air. There can be no question of the utility of the system. The first question, as to opening these ventilators in foggy weather, must depend on circumstances. No house-plants like dense fogs. If the house is close glazed, such fogs will often be excluded; and if the temperature inside is high enough, and the fog is of short duration, I would keep the house shut, and give no air whatever. If the fog got into the house, I would put on enough of fire to change the fog into invisible vapour. If very dense, or at all cold, I would use enough of fire to do this, and give a little air at the top of a common house an inch or two; and at top and bottom of such a house as our correspondent's. This would not only clear, but agitate and renew the enclosed atmosphere. The front air should be taken away first, and the top also be taken away early; a moderate heat will keep the fog at bay, and, in such a circumstance, the drier the heat the more effectual it will be.

R. FISH.

CYPRIPEDIUMS (LADIES SLIPPER PLANTS).

The group of plants under this name are very interesting, and are widely spread on the surface of the earth. One species is a native of our country; another so far north as Siberia; several are found in North America; all these may be considered as hardy. On the other hand, some are natives of the hotter parts of the world, namely, Java, Malacca, Borneo, and Nepal. They may be divided into three divisions of, 1st, Hardy; 2nd, Greenhouse; and 3rd, Stove. It may seem an anomaly, but it is quite true that the hardy ones are the most difficult to cultivate; and that difficulty exists in correctly imitating the soil and situation in which they grow wild. Our own species, in its wild state, is becoming exceedingly rare; indeed, it never was very common. I remember, when I was under-gardener at Womersley Park, near Pontefract, the seat of Lord Hawke, I had a fellow-apprentice, whose father lived near Settle, in Yorkshire, a place that is situated near what has been called the Alps of England; there the Ladies Slipper has been found. This person, whose name was Partridge, was a tolerable British botanist, and in his rambles in that neighbourhood met with a strong root of this English *Cypripedium*; and, like too many discoverers of rare plants, he dug it up and sent it to his son, living with me. I was then not more than eighteen years old, and was a bit of an enthusiastic lover of rare plants; and, therefore, though our wages were only twelve shillings per week, and provisions were exceedingly dear, I purchased the plant of him, for which he charged me a guinea. It had what he called twenty-one rises; that is, it had that number of buds, and, consequently, could be made, in time, into as many separate plants. I was happy in procuring such a fine specimen, and sent it to my father, then a nurseryman near Leeds. He tried to cultivate it, and succeeded for a few years; but it gradually got smaller and smaller, and, finally, perished with all its progeny. This little anecdote of, perhaps, the finest root of this Lady's Slipper that ever was found in England, proves that nearly forty years ago it was a rarity. It proves, also, the difficulty of keeping it alive in gardens; but then cultivation of these varieties was not so well understood as it is now.

To render their culture more easy to practice, I have determined to write a paper or two on them, and shall follow the divisions as given above.

1ST, HARDY SPECIES.

CYPRIPEDIUM ACAULIS (Stemless).—A dwarf species, with rose and purple flowers, from North America. The flowers have stems about three inches long. It is the plant that has no stems.

C. ALBUM (Pure White).—A North American species, growing a foot high, with rather broad plaited leaves and pure white flowers.

C. ARIETINUM (The Ram's Head).—So named, from the fanciful resemblance of the lip, or labellum, to the head of that animal. A low-growing species, from Canada, with a greenish labellum, and rosy-purple sepals and petals.

C. CALCEOLUS (Common Ladies Slipper).—This is the British species, growing about a foot high, with yellow labellum, and greenish-yellow sepals and petals; flowering in June. There is a variety found in Switzerland, which is not much different.

C. ATSMORI (Atsmore's).—I cannot think this so-called species is any more than a variety of *C. calceolus*. Thunberg calls it by that name; he found it in Japan, and it was introduced into European gardens by Dr. Siebold, about twenty-five years ago. The labellum, like our species, is yellow, though brighter; and the sepals and petals are of a rich brownish-purple. It is in the leaves that the variation principally lies. They are sharper and more lance-shaped, and there are some hairs at the base of the petals which are not found in *calceolus*, and the lip is not so swelled out. These are very meagre points on which to found a species; but as some continental botanists seem determined that it shall be a distinct species, let it be so. It is as hardy as the Swiss variety.

C. MACRANTHUM (Large-flowered).—This is a fine species from Siberia. The whole flower, labellum, sepals, and petals, is of a pleasing purple colour, and is very large. The leaves are spreading and broad; excepting those on the stems, they are rather narrow and pointed. It only grows about nine inches high, and is well worthy of cultivation.

C. GUTTATUM (Spotted-flowered).—A lovely little plant, from Siberia, growing only six inches high. It is beautifully figured in Van Houtte's "Flore des Jardins de l'Europe." The stem is short, bearing a pair of stem-clasping leaves, oval shaped, and hairy on the edges and ribs. The flowers are single; the labellum is white, with longish blotches of rosy-purple. The petals rather narrow and short, and the sepals broader and still shorter. It grows in moist bogs in its native cold country; and, like many others, is difficult to manage and keep alive.

C. PARVIFLORUM (Small-flowered).—An interesting species, with small, yellowish flowers, from North America.

C. PUBESCENS (Downy).—Another North American species, well worthy of cultivation. It has downy leaves and flowers. Labellum yellow; petals and sepals purple; flowers in June.

C. PURPURATUM (Purple-flowered).—Found in Greece, and a very handsome species, growing nine inches high, and flowering in September. The flowers are of a rich purple colour.

C. SPECTABILE (Most Showy).—I consider this by far the finest of all the American species. I have seen it with upwards of twenty of its large, showy flowers on one plant. The labellum is white, slightly spotted with pink; the sepals and petals are a light purple; there is a flesh-coloured and a white variety.

C. VENTRICOSUM (Swollen).—A Siberian species, growing nine inches high, flowering in April. The entire flower is of a dark purple colour.

These are all the species that I consider hardy.

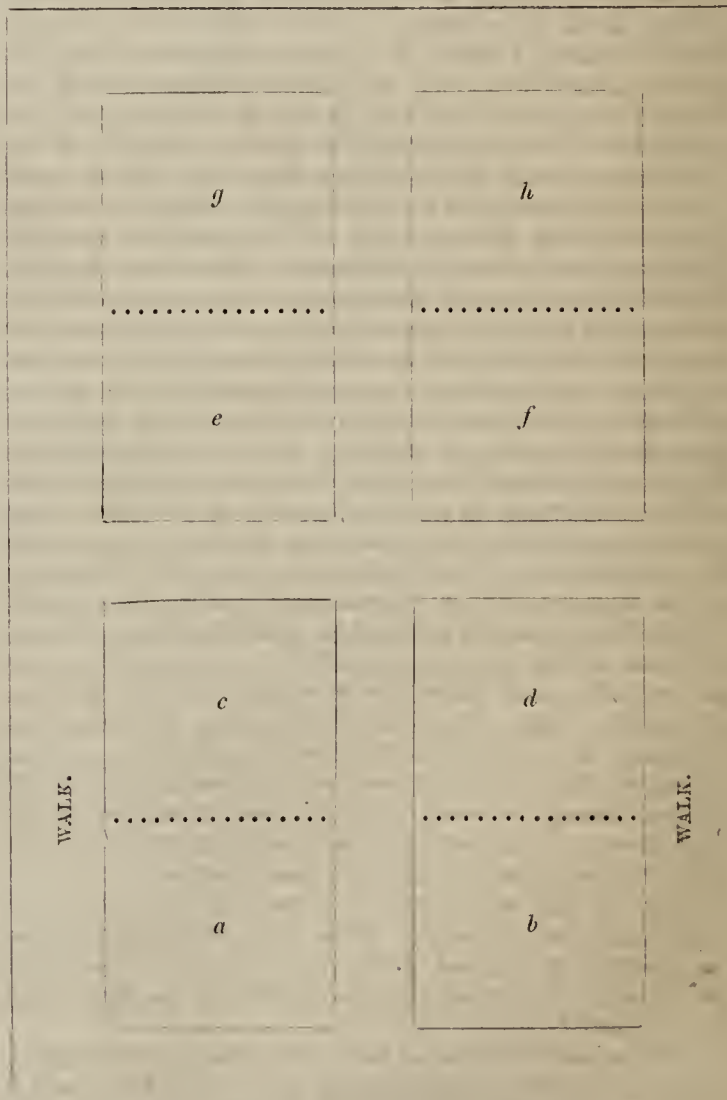
The culture of this division I will give at an early opportunity.

T. APPLEBY.

(To be continued.)

GARDENING FOR THE MANY.—JANUARY.

GENERAL REMARKS.—Although there is but little outward work which might not with greater advantage have been done in the autumn than now, still, it sometimes happens that want of time, or other causes, delay the finishing of many important works which it is essential should be done in sufficient time to receive the mellowing influences of frost, such, for instance, as the preparation of new ground for garden purposes, trenching, or altering, making walks, draining, or, in fact, any extra jobs of that kind cannot be too strongly urged on the amateur at this season. Do not allow the excuse, that "there is plenty of time yet," to prevent the work being hastened on with all speed; for although we often have hard weather in February, it is not well to delay operations that could as well be done now, in the expectation that next month's frost will do all that is wanted towards fertilising newly turned-up ground. Next month may be wet, instead of frosty; we cannot, therefore, too strongly urge on the occupiers of all gardens, or on those contemplating making a garden, to be "up and doing;" and though we cannot give instructions to meet every individual case, we hope to give such as will meet most ordinary ones. Commencing, therefore, with the kitchen-garden department, which, for accuracy, has been allotted into eight divisions, a few notes on each will convey the clearest idea of what is meant to be done.



a.—This being *Strawberries*, in a tolerably healthy condition, we will suppose that they had been cleared of all superfluous runners last September, and a little well-rotted dung slightly dug in early in November, there will be little wanted now, save to protect the *British Queen* plants by a little rough litter laid over them, if a dry, hard frost sets in

without snow. Observe, it is only in the event of its being very severe that we recommend this tender kind to be a little protected, other kinds will do without. It is better not to prune the *Raspberries* which separate this division from *c* until March; but stakes may be put in ready for tying the canes to, or, what is better, a slight rail trellis may be put up for the purpose.

b.—The remarks made last month are still applicable this, and if very severe weather occurs, the general utility of *Brussels Sprouts* over almost all other kinds of winter garden stuff will be apparent, as they are ready for use at all times, from October until April. Nevertheless, keep a watchful eye on *Brocoli*, which cut and remove to a place of safety when ready. Remove the stalks as soon as a quantity are cut, and dig or trench the ground, adding manure at the same time, taking care, however, not to operate upon it when very wet.

c.—Take care of the *Sea-kale* that has been forced, and do not entirely expose it to the cold after its late warm quarters. Cover up more as wanted, not forgetting that as the season advances it comes into use in proportionate less time. *Rhubarb* the same. *Asparagus* requires no comment; but see that the covering to the *Globe Artichokes* does not press too closely against the foliage; it is better to partially shake it up a little after snow and rain.

d.—This having been *Onions* last year, and, subsequently, late *Celery* and *Turnips* on a part of it, as soon as these crops can be safely cleared away let it be dug, or, rather, half-trenched, if the soil will allow it, for *Carrots* and other roots, digging in manure, if it should be supposed to want it, to the bottom of the trench. A subsequent digging in slight frosty weather, next month, will also be useful; but do not hurry off the *Celery* too quickly; nevertheless, it will keep some time if taken up uninjured, and laid in by the roots into some cool place, covering it up as deep as before.

e.—This being *Brocoli*, *Savoy*s, and other winter crops, little can be done until they are done with, when the remarks above, relative to digging, &c., must be acted upon as early as the ground is vacant.

f.—If the *Cabbage plants* should be blown about with the winds, so as to make a sort of hardened hole by their stem, let the ground be pressed to them some fine day, and being slightly stirred at the same time, and frost following, it is likely some of the nests of slugs and other enemies may be destroyed; make good defects in the plantation at the same time.

g.—If *Peas* were sown here in November, and again at Christmas, the first crop will be up, probably, and must be protected from mice, &c., by barley chaff, coal ashes, or other substance distasteful to these vermin and to slugs. Sow another crop of an early white sort towards the end of the month, after which sow only the larger green sorts, as *Champion*, &c., as will be noticed at the time.

h.—Take up and remove to some sheltered place *Lettuce* or *Endive* that is about fit for use. A quantity of *Turnips* ought also to be housed prior to bad weather, and *Celery*, *Red Beet*, *Parsnips*, *Jerusalem Artichokes*, &c., will all keep very well under cover, but in a cool place, at this season, covering everything up with sand, or soil, the required depth. And as this plot will be vacant early, it would be well to prepare it for *Onions*, by deep digging and manuring; even trenching will be of service, for the *Onion* roots deep when it has a chance to do so. We have known *Onion* roots twenty-two inches deep in the garden, the crop being good and heavy.

BORDERS.—These are very important parts of the garden, and, supposing them to run round all the four sides, we have all the four aspects. On these borders there will be successive crops of *Lettuce plants*, most of which will require a mat thrown over them in very severe weather, first bending hoops over the beds, or in some way preventing the mat from lying flat upon the plants. *Cauliflower plants* will sometimes live the winter with a similar protection; but it is better to give them the advantage of hand-glasses if they can be had. *Cabbage plants* in beds, or planted out, require less care. But the earliest crop of *Peas* coming up must be saved from mice by trapping before they do any mischief, and slugs may be kept at bay by a coating of barley chaff, or cinder ashes. A bed of *Shallots* may be planted, and a few early *Potatoes* may also be put in the best situation, and immediately under a south wall. *Radishes* may be sown. See that *Sweet Herbs* and other things go on all right, and be sure and dig vacant ground betimes, looking round, at the same time, to see that no littery rubbish offends the eye anywhere. Make good *Box*, and other edgings, and repair the walks in open weather, taking care to roll well after frost is gone.

FRAME.—As this is supposed to contain *Calceolarias*, *Fuchsias*, *Antirrhinums*, *Pentstemons*, and other young plants of that hardy kind which damp does not easily injure, care must be taken to cover well up at night, and in severe weather they may remain so for several days; but *Geraniums*, *Verbenas*, *Petunias*, and *Cinerarias* must be accommodated with a drier place, as they cannot resist "damp" so well as the first-named plants; but by the end of the month some hot dung must be prepared on which to grow *Cucumbers*. See next month.

FLOWER-GARDEN.—Our engraving is by no means meant to be a guide to the amateur, it being simply one similar to many such forming the front garden of a villa residence. But the object here is to show that a small garden may produce a good many flowers if well managed. Now, as a commencement, it would be well for the cultivator to ascertain if the arrangement of beds and borders can be improved, which very likely they can. Even our engraving is one-sided as regards the number of beds; these, therefore, had better be remodelled and made uniform, and the *Standard Roses*, and other permanent plants, properly planted. A sound and deep trenching is as necessary and as much relished by flowers as vegetables, and some of them root deeply. Take care, in making such alterations, that perennial herbaceous plants do not suffer by exposure, as they must of necessity be taken up. However, let them be as speedily planted again as possible, and be sure not to plant too thick; two feet each way is not too much for this class, as *Geraniums*, *Calceolarias*, and other summer plants will find a place amongst them by-and-by.

SHRUBBERY.—This is meant to represent the outside border, which, like the flower-beds, may want altering; if so, let shrubs and trees be all planted in mild, open weather, and cover their roots with dung, or litter, to keep out frost, staking or tying up all tall ones, and digging all open spaces, taking care, however, not to do so too deeply, lest the roots be injured. Holes may be dug in any open spaces, and filled with a good compost for to plant *Dahlias* in at the proper time, taking care so as to arrange them and other things that the tallest may be furthest back, and *vice versa*. Prune *Roses*, if not done before, cutting very little of the tender kinds; and some of the climbing ones are better thinned out than shortened; the same being the case with the double yellow *Rose*, and some others.

ROCKERY.—Little can be done here unless, as mentioned above, it be determined to remodel it, which, however, had better be deferred until the latter end of next month, as there is every probability of frost in-

tervening, which would be more hurtful to the plants here than most others, as they would of necessity be more exposed, and many of them, being shallow-rooted, would be liable to be drawn out by the frost; and as we suppose the rockery was thoroughly cleaned up in autumn, there ought not to be much now to do; at the same time, do not forget that an air of neatness ought to pervade every department, which, in the absence of flowers, does much to compensate for them; and all walks, turf, and spare places, ought to be frequently swept, or otherwise cleared; and a few cheerful evergreens, in their proper places, gives an air of neatness, all the more necessary at this season when floral attractions are but few and confined in-doors.

A SELECT LIST OF GARDEN SEEDS.

ASPARAGUS.—This is not often sown by small gardeners, but when it is, the ordinary *Battersea* is preferred to the *Giant*.

BEANS.—*Broad Windsor* and *Long Pod*, both good.

BEEF.—Dwarf-topped crimson, or Blood. **WHITE.**—This is not much used in small families.

BORECOLE.—*Dwarf green curled*, or *curled Kale*, good in early spring. *Buda Kale*, very hardy.

BRUSSELS SPROUTS.—Imported seed. This is the most useful winter vegetable grown.

BROCOLI.—*Sprouting*, for hardihood. *Portsmouth*, large, late, pale kind. *Walcheren*, for early winter. *Cape*, for autumn use. *Chappel's Cream*, for mid-winter.

CABBAGE.—*Fulham* and *Matchless*, both are good. *Red Dutch*, for pickling. *Drumhead*, for cattle feeding. *Tronchuda*; ribs of leaves used as Sea-kale.

CHOU DE MILAN.—A delicate variety of Borecole.

CARROTS.—*Early Horn* and *Long Orange*. The *Horn*, best Carrot for table, but smaller than the other.

CAULIFLOWER.—*Early*. This endeavour to have true.

CELERY.—*Dwarf Red* and *Crystal White*. A little of both advisable, the *red* usually standing the winter best.

CRESS.—The *Plain*, for small salading. *Ameriean*, used in a more advanced state.

CUCUMBER.—*Cuthill's Black Spine* and *Sion House*, either very good for frame. *Long Ridge*, for growing out-of-doors.

ENDIVE.—*White-curved*, for general winter use. *Batavian*, for spring.

GARLIC.—Used medicinally occasionally.

JERUSALEM ARTICHOKEs.—Not much grown in small gardens.

KIDNEY BEANS.—*Scarlet Runner*. Only one variety of this good. **DWARF.**—*Fulmer's Early Forcing*. *Dark-coloured* and *Liver-coloured*, for good bearing.

LEEKs.—*Flag*, for ordinary purposes.

LETTUCE.—*Brown Coss*, for all seasons. *White Coss*, for summer. *Drumhead Cabbage*, for summer. *Hammersmith Hardy*, for standing winter.

MELON.—*Beechwood* and *Munroe*, green-fleshed.

MUSTARD.—*White*, for small salading.

ONION.—*White Globe* and *James's Keeping*, both for general crop. *Silver-skinned*, for winter and pickling.

PARSLEY.—Best garnishing table-curved.

PARSNIP.—*Jersey Marrow*.

PEA.—*Warner's Emperor*, for early crop. *Seimitar*, and No. 1. *Champion of England*, for general summer cropping and good eating.

POTATO.—*Early Ash-leaved*, for frame and very early use. *Early Shaw*, for good cropper. *Regent*, for good quality. *Lapstone*, or *Fluke*, said to be less diseased than others.

RADISH.—*Short Top*, for general spring use. *Red Turnip* and *White Turnip*, for summer and autumn use.

RHURARB.—*Myatt's Victoria*, best for general purposes.

SALSAFY and **SCORZONERA.**—Only occasionally used.

SAVOY.—One kind plenty, say *Drumhead*.

SEA-KALE.—Only one variety known.

SHALLOT.—Used in cooking.

SPINACH.—*Round*, for summer. *Prickly*, sow in autumn for winter.

TURNIP.—*Early Snowball*, for summer. *Early Stone*, for winter use.

TOMATO.—*Common Red*, mostly used.

VEGETABLE MARROW.—*Common Long*, most in use.

SWEET HERBS LIKELY TO BE WANTED.

BASIL.—Used in soups, &c., an annual.

FENNEL.—A perennial.

HYSSOP.—A perennial.

MARJORAM (Sweet).—An annual.

SAGE.—A perennial, propagates by slips.

THYME.—A perennial, propagates by slips.

MINT (Spear).—For culinary purposes.

LAVENDER.—A perennial, seeds or slips.

A SHORT SELECTION OF FRUITS.

APPLEs.—*Hawthornden* and *Keswick Codling*, for early kitchen use. *Wellington*, *Barcelona Pearmain*, and *French Crab*, for later use. *Kerry Pippin*, *Ribstone*, *Gravensteine*, *King Pippin*, *Golden Knob*, and *Nonpareil*, for table purposes.

APRICOTS.—*Moorpark*, where it will succeed; where not, try *Orange* and *Brussels*.

CURRENT.—*Black Common* and *Black Naples*, both good. *Red*, for tarts in season, and preserving. *White*, for table use.

CHERRY.—*May Duke*, for early use. *Black Heart* and *Tartarian*, both good. *Bigarreau*, large pale-coloured. *Elton*, for late table purposes. *Flemish*, for preserving. *Morello*, for preserving and keeping late.

GOOSEBERRY.—*Early Yellow Rough*, soonest ripe. *Warrington*, for preserving. *Whitesmith*, for using green. *Turkey Red*, or *Champagne*, for table. *Green-Gage*, also good at table.

GRAPE.—*White Muscadine* and *Black Cluster*, for walls. *Black Hambro'*, *White Muscat*, and *White Sweet Water*, for hot-houses. *Black St. Peters*, for hot-houses for late use.

NECTARINES.—*Elrège*, good on walls generally. *White*, good bearer. *Newington*, for late use.

PEACH.—*Royal George*, for general use the best. *Galande*, a good Peach, pale, and rather delicate.

PEAR.—*Jargonelle* and *Green Chissel*, for early use. *Williams' Bon Chretien*, for use in September. *Marie Louise* and *Duchess d'Angouleme*, for October use. *Ashdown Park*, a good bearer, for November. *Beurré Diel*, *Beurré Rance*, *Easter Beurré*, and *Ne Plus Menris*. These and several others are good during the winter months.

PLUM.—*Green-Gage*, best in flavour. *Orleans*, for good bearing and cooking. *Magnum Bonum*, for preserving. *Goliath*, for size and hardihood. *Damson*, for peculiar flavour.

RASPBERRY.—*Pastolff*, for general bearing. *White*, or *Yellow*, for table. *Autumn-bearing*, comes into use in September, and continues all the autumn.

STRAWBERRY.—*Keens' Seedling* is, unquestionably, the best yet for general use. *British Queen*, for flavour, where it will succeed. *Elton*, for late use. *Alpine*, for late bearing. *Hautbois* for peculiar flavour.

J. ROBSON.

NOTES FROM PARIS.

THOUGH horticulture round Paris, and, perhaps, on the continent generally, is not so advanced as it is in England, in respect to the treatment of plants, yet there are some kinds which are better understood, or receive more attention

than others, and these, while treated somewhat differently, are as well grown here as they are near London.

One of the foremost of the list in question (limited enough, certainly) is the *Camellia*. Like the Roses, many choice varieties of Camellias are raised or cultivated round Paris. Already, a considerable supply of flowers and flowering plants are brought to market, and, of course, at this season they do not remain long in hand, for during a month or two more the Camellia will be the leading flower, though *Acacias* and dwarf *Orange-trees* in fruit will also be plentiful.

All the nurserymen here, who keep up a collection of *Camellias*, have a certain number of large, shrubby plants for the supply of shoots and flowers for bouquets; but the chief trade is in small flowering plants for windows and the general decoration of saloons. These may be had at all prices, according to the variety, the size of the plant, and the number of flowers or buds upon it. On ordinary days, well-grown plants sell at about a franc a piece (10d.); but if it is a *fête* day, then the same plants fetch ten or twelve sous more, or even double the usual price.

The pot-culture of Camellias begins here about the month of April. The soil used is chiefly peat; such as is well furnished with vegetable humus, to this is added a suitable portion of light sand. The soil is kept as much as possible in lumps, and the French growers always recommend the decayed roots of peat for placing at the bottom of the pot; they seldom or never use crocks or broken bricks as drainage for these plants. After repotting, the plants are kept well shaded and watered in a house of moderate temperature. The Camellia houses, or rather pits here, at least such as are used for young plants, are of the long span-roofed form, deeply sunk in the ground, or with the lights only raised about a foot from the general surface. Nothing can be more easily or more economically constructed, so to speak, for, with the exception of the lights, the materials need cost nothing. The frame-work of the lights is supported on turf slightly raised. Turf also forms the sides of the passage in the centre, which is seldom wider than a foot or fifteen inches. It is only in the leading establishments that canvass blinds are used. The commoner way of shading is to paint the glass thickly with Spanish white, mixed with size, in order to make it stick. No fire is used after February, but the pits are shut up early in the evening, a little air being given during the day. The plants are gently syringed in the morning and after shutting up at night, the roots being duly supplied with water when required. The growing season for Camellias here does not extend over July, and then the plants are placed on a border with a warm exposure, the pots being imbedded in the soil. It is considered a point of some importance to promote a humid atmosphere in the immediate vicinity of the plants, and this object is effected by frequently sprinkling the ground with water. The plants are put into the pits again about the middle of September; and from this time they are but seldom watered or syringed.

In December and January, watering is nearly quite discontinued, and the temperature of the house, or pit, is kept low. Syringing is now carefully avoided, for the plants are in process of flowering.

The larger plants in greenhouses are treated in nearly the same manner; but where the house is sufficiently large, the Camellias are planted out on carefully prepared borders.

One of the chief summer ornaments of the pleasure-grounds in England is *Crataegus*; but it is not common in the gardens round Paris. The *Lilac*, so much grown here, is not to be compared with the Hawthorn, especially the double varieties. Not only is the Hawthorn graceful in outline, whatever its size may be, but its flowers, lasting nearly a month, have the double charm of beauty and perfume.

I mentioned, in a former article, that there are not in Paris those enclosed gardens which we call squares; but since that time my walks have been extended, and I find that there is at least one real square in Paris, such a square, too, as deserves to be noted; but, of course, it is called a *place*, and in this instance, it is "La Place Royale," made all the more public since the extension of the Rue Rivoli to the St. Antoine. Place Royale, which is about the size of Hanover Square, in London, would seem to have been built early in the seventeenth century, either by Catherine de Medicis, or Louis XIII.; probably both had a share in its

construction. The architecture is in keeping with a bygone age, and forcibly reminds one of Hampton Court. There are long, open passages under the houses, which are supported in front on heavy square columns. The façade is of red brick and stone cornices. Then the roof runs up from the coping nearly thirty-five feet, and is freely studded with skylights to the very top. Under the arches are one or two small shops, occupied by lithographers, milliners, and grocers; but as there is no general thoroughfare, except at one side, the square is but little frequented, and it has more the appearance of a quiet home for retired tradesmen than anything else. Formerly, however, it was the centre of fashion and distinction; but the wealthy and the great have abandoned it for the Champs Elysées and the *Quartier St. Germain*. The houses seem to have been built as if destined to last for a thousand years, or resist a siege; and here and there sentries may be seen tramping up and down the silent corridors, as if indicating that the ancient home of royalty is still considered worthy of honour. But the square, that is to say, the garden, was my principal subject of observation; and, as you will see, somewhat different from our London squares. There is, first, immediately within the massive iron railings, a double row of old lime trees, about twelve feet apart, and these are, of course, always kept short overhead. This avenue extends all round the garden, and in summer form an agreeable shade from the sun. In the centre of the whole is an equestrian statue of Louis XIII., in the middle of a group of old Maples, which, strange enough, have been allowed to grow in a natural manner. There are plenty of benches, in wood and stone, for the use of the people, for, as usual, the square is open to everybody. But the principal features of the place are the four small circular plots of ground, which are neatly laid out and planted with flowering shrubs and herbaceous plants. These enclosed gardens contain, besides, basins and fountains; the latter quite as large as the fountains in Trafalgar Square, and more elegant in design. The arrangement of these circular gardens is simple and neat. From the side of the basin, which is slightly raised, there is a sloping bank of grass, then a broad border of Ivy, trimmed so as to rise about eight or ten inches in the middle, and gradually fall to the margin. Then, the ground between the Ivy and the low hand-railing is occupied with small shrubs and flowers, the *Lilac*, of course, taking the lead among the former. With the climate of Paris, and the fondness of the people for out-of-door amusements, it would be too much to expect grass to any greater extent than what we find under especial protection; but from March to November there is not a more agreeable promenade in Paris than this same solitary Place Royale. It is, in fact, the resort and playground of all the children and nurses of the locality; but nothing is allowed by the officers on duty which would be inconsistent with its ancient dignity. As a promenade it is much preferable to *La Place de la Concorde*, which can only be looked at through a pair of green spectacles.

In summer time the fountains play continually, and every day the ground is watered by means of a long hose, which is furnished with broad wooden rings about three feet apart. In this way the hose is kept off the gravel, and it is the more easily drawn in any particular direction. These rings, of course, are moveable, but they are kept in their places by smaller rings of leather, which are not moveable. I do not recollect ever seeing such an expedient before, and, perhaps, it is only necessary where there is no grass.

If this is not the only square in Paris, I should think it is the oldest; and nothing I have yet seen comes nearer the enclosed gardens which are so plentiful in every large town in Britain.

We had a fall of snow, for the first time this season, on the 4th instant, and snow has fallen occasionally ever since, but, as yet, not to any great extent. As the wind is in the north, however, frost continues, and we are likely to have plenty of snow before long.

Considerable supplies of fruit continue to arrive from the provinces. No fewer than thirty-six large boats were lying at one place the other day, and all full. Large, good eating apples, in particular, may be had as low as a franc a dozen (10d.); many of the sorts are first-rate. Of Pears, the *Seckel*, *Marie Louise*, *Curé*, and *Duchesse d'Angers* are the most common.

At present, *Spanish Chestnuts* are in season, and selling at four sous a litre, or about a penny a pint. *Truffles*, so *recherché* for the tables of the rich, are fetching from four to five francs a pound. *Quinces* are extensively used here for marmalade; they are also sold *glacé* in sugar by the confectioners. There has been a heavy crop of them this year.

Flowers, at present, are somewhat scarce, the principal sorts being *Camellias* and winter-flowering *Heaths*. Moderate-sized bouquets, with one, or, at most, two *Camellias*, are not to be had in the shops for less than six or seven francs.

One of the latest novelties is an ornamental pot, which sometimes also takes the form of a vase. On an average, it is only about the size of an ale glass or tumbler, and it presents, at the exterior, a series of green and pink colours in circles alternating. This sort of pot, resembling coloured glass, is used for very dwarf *Heaths* in flower, both plant and pot being only about six or eight inches high. This is certainly the prettiest drawing-room flower-pot which has been introduced yet. Since writing thus far, I have had an opportunity of seeing a more extensive collection in the depot of M. Baron, Passage de l'Opera, on the Boulevard des Italiens, where there is a great variety as to form, size, and finish, and at all prices, from one to fifty francs. I may first state that these very beautiful pots and vases are made of metal but little heavier than zinc; but it may be questionable if they are so well suited for the roots of plants as the common pots.

With this may be mentioned a pretty and rather singular object for the window of a room, and which may be classed with the trailing *Saxifrage*, or the young *Oak*, suspended in a closed glass, such as may be seen in the Kew Museum. The novelty in question consists of a large pine cone, placed in the mouth of a glass, having a small quantity of water at the bottom. The scales of the cone are first slightly opened, and lentil seeds are dropped into the openings. Water is sprinkled over the cone as may be necessary, say twice a day, and in a short time the lentils send up their small green shoots and cover the cone. The scales are opened by placing the cone in any moderately warm place for a short time.

As I mentioned the death of M. Molé in my last, it may be useful just to note the distinction between the name and that of M. Moll, the agricultural writer, and present lecturer at the *Conservatoire des Arts et Metiers*.—P. F. K.

ALLOTMENT FARMING.—JANUARY.

As the vital powers of vegetation begin to be active very early in the new year, our interest in the operations of gardening increases. We have never heard the plaintive song of the Robin, in October, without experiencing a depressing feeling that the dull days of a long winter were approaching, when the sunless and dreary weather of November and December fogs the plants in greenhouses and pits. How rapidly the least speck of decay then spreads and corrodes every leaf it touches. How long and sickly appear the shoots of plants, how bare of foliage they are apt to get! It is a time of watching with the gardener and amateur, dreading the effects of damp and frost, until the new year brings in a lengthening of daylight. But although the old adage, that "as the day lengthens the cold strengthens," is generally verified, we find our spirits more buoyant, the fruition of our constant watching is close at hand, the sun appears more frequently to cheer vegetation, and although frosts may be more severe, the increasing clearness and brightness of the atmosphere give vigour to the plants. Soon now, after the hardest and longest frosts, the bulbs begin to appear above the ground. The *Snowdrops*, and then the *Crocuses*; and the powerful fragrance, rich colours, and stately forms of the *Hyacinths*, contribute, with other plants, to the enjoyment of the conservatory or drawing-room.

To those who may be disposed to venture upon the cultivation of a bed of *RANUNCULUSES*, than which there is nothing more showy, we would commend them to select a situation where the rays of the sun would only fall for a few

hours in the early part of the day. If the soil in the bed is rather poor, a little leaf-mould, or rotten dung, should be added, the whole to be thrown out of the bed in a ridge around it, and the top surface, when frozen, to be chopped off into the bed; when the surface is again frozen, to be chopped off again, and so continued until the whole is returned to the bed. By such means it will be in a good state, free from grubs, and fit for planting by the middle of next month.

If a sharp frost sets in, *TULIPS* should be protected with a good coat of straw or dry litter, *PANSIES* looked over, and any loosened by worms pressed firmly in the soil.

The compost heap intended for blooming *CARNATIONS*, *PICOOTES*, and *PANSIES* in pots, should be frequently turned over, that the whole may be exposed to the ameliorating and grub-destroying influence of the frost, to be protected from heavy falls of rain or snow. If the cottager is disposed to raise a few *AURICULAS* from seed, and *Auriculas* in many parts of the country are great favourites with the cottager, the seed should be sown during the early part of this month, the soil to be three parts fine leaf-mould, and one part silver sand. The pot, or pan, to be filled one-third of its depth with broken potsherds, then filled up to within an inch of the top with any light rich soil, and then filled to the top with leaf-mould and sand. The surface to be levelled, and the seed gently pressed into the soil and very slightly covered, to be protected under a handlight or cold frame from heavy falls of rain or snow, with the soil kept moist until they vegetate. *ANEMONES* should now be planted for late flowering.

PLANTING and PRUNING of fruit-trees, bushes, and shrubs may be done in open weather. A row or two of early *Peas* and *Beans* may be sown to succeed other crops, or for the first, if none had been sown before. The *CAULIFLOWER* and *LETTUCE* plants in frames should be kept dry, and all decayed leaves picked off. The ground hoed between the rows of *CABBAGES* and other such crops, and earth raised to the *CELERY*, in mild, dry weather. *RHUBARB* is easily forced by various means, by covering the crowns with an old firkin, chimney-pot, or anything else at hand, and covered with some warm dung, or the roots taken up and removed to an outhouse or cellar, where they will produce some stalks for use before they are to be had in the open ground, covering the crowns with a cone of litter will protect them from frost, and accelerate their growth.

Although it has been frequently recommended, it may be of advantage to some to restate, that during a sharp frost, if the walls are infested with *INSECTS*, to syringe the entire wall, and fruit, Rose, and other trees, with clear water through a fine rose, will destroy every snail, slug, egg, &c.; no insect pest will survive the freezing up in solid ice, and all that are washed down from their hiding-places, and from behind the branches of the trees, share the same fate, under a sheet of ice, at the bottom of the wall.

The farming operations of the allotment, during January, may consist of *DRAINAGE* where necessary; and there are very few soils that are not improved by drainage. When the subsoil is retentive of water, drains should be made to carry the superabundance off, as every soil retentive of water is less productive on account of its coldness, and the exclusion of the atmosphere, than the soil through which the rain can percolate, and carry down its fertilizing properties. The main drain to be from three or four feet deep, brought up from the lowest part of the ground with an outfall into an old ditch, or any lower level. As the object is to carry away the rain water which falls uniformly over the surface after it shall have soaked through the soil and subsoil, the nature of the subsoil will determine the depth and the intervals to be adopted. The parallel drains are from seven to eight yards apart. The main to be about three or four inches deeper than the parallel drains, to be made directly down the ascent, unless the ground is very steep. A little straw, or litter, may be placed above the tiles or stones, after they have been carefully placed, and the earth filled in and rammed firmly down.

The increase of the *MANURE HEAP* should also receive the cottager's best attention. It is advisable, when the cow-shed or pigsties are cleaned out, to cover the heap with earth to preserve its nitrogenous and ammoniacal compounds. The dung of the horse, the ox, the pig, or cow, although they

may be fed nearly upon the same kind of food, will vary very much in composition and quality. Straw from Wheat, Oats, Barley, Peas, Beans, &c., or any other vegetable matter, being mixed with the animal manure, very much augment, and materially affect, the quality of farm-yard manure, the constituent part of these substances being in part earth and earthy soluble salts, and in different proportions, which, by entering into combination with the animal and more soluble matters in the dung, retard the two rapid putrefaction of them, and when in a proper state of preparation and combination in a heap, form the best and most durable manures we have. Soap-suds, lime-rubbish, soot, pigeons, or fowls dung, and all other refuse substances about the cottage, also horse-droppings and road-scrappings, should be added to the compost heap. All kinds of refuse, rubbish, prunings of Gooseberries, Currants, and other such spray, green sward, or heathy turf, should be partially converted into charcoal by burning in a close heap; and if the land is very heavy, clay burned in the same way is a capital dressing.

As budding Nature will soon invite to fresh exertions in her wide domain, it may be permitted to us to direct the attention of the amateur, the gardener, and the cottager, to the advantage of stirring up facts for immediate or future use.

The idea that so much has been written on gardening subjects, and the fear of having nothing original to communicate, have deterred many persons from making observations; but what Ray has remarked, "that so rich is Nature, that a man born a thousand years hence will still find enough for him to do and notice," is equally applicable to the gardener, amateur, or cottager, who has the large and inexhaustible field of vegetable existence always open for his investigation. No fact, however trifling, should be considered unworthy of notice, as it is impossible to determine the exact importance of any circumstance in the cultivation of any fruit, flower, or vegetable, until we know its whole history; and not only this, but the whole history of other allied species, so as to ascertain what is peculiar to the one in question, and what is common to all the species of the group to which it belongs.

The more a man observes the more he finds to observe. From having been long accustomed to have his eyes always open, he perceives objects which formerly he would have entirely passed over, and which others less practised than himself with difficulty distinguish, even when their attention is expressly drawn to them, as is very frequently exemplified in the arrangement of the flower-garden and pleasure-ground scenery. It is truly remarked, that it is really wonderful how little we see until we have learned to observe. There is that sort of originality required in the investigation of the phenomena of vegetation, that the observer should dismiss every notion from his mind imbibed from others, until he has taken correct steps to verify it, and to go forth to observe, determined to see and judge for himself, with as much caution and exactness as possible.

WILLIAM KEANE.

THE CANARY IN ITS WILD STATE.

In your last Number but one, your Correspondent, Mr. B. P. Brent, who writes on the "Varieties of the Canary Bird," says, that he much regrets not having met with any minute or accurate description of the wild originals of the Canary Islands.

You will, perhaps, allow me, as I am tolerably intimate with "the wild originals," in their native countries, to give Mr. Brent what little information I possess on the subject.

The Green Canary, or *Fingilla Butyracea* of Linnaeus, is, doubtless, the original stock of the bird so well known to us as the Yellow Canary. It flies about in large flocks, much as the Sparrow does with us,—and, at a distance, flocks of these birds might well be mistaken for each other; though, by the way, they do not coexist in the same countries. The price of a good singing Canary in the Island of Teneriffe varies from five to nine shillings; so that, in fact, it may be bought cheaper in London. On the occasion of my visit

to Teneriffe, I was determined to possess myself of a first-rate songster to take with me to England. After due deliberation, and all the shrugging of shoulders, declarations of the utter worthlessness of the article I desired, and other concomitants of a Spanish bargain, I marched my prize in triumph to the *Fonda*. There I fell in with a very agreeable Spanish *Padre*, Father Tierney by name, and Irish by extraction. He had formerly served in Spain as a dragoon, and had now retired to the Canary Islands as a priest. He had not, however, assumed the sombre manners of his habit, and was a most pleasant companion. I determined that my bird should bear his name. Father Tierney returned with me to England, and often reminded me of his jovial god-father by his merry song. Now comes the most remarkable part of the story. After Father Tierney had passed about twelve months in England, and won the affections of many by his beauties and melodies, he was found one morning to have sadly belied his name, and deposited an egg at the bottom of the cage! The now-no-longer Father Tierney did not long survive this *dénouement*, and died shortly afterwards.

In the "Zoological Journal," Number xvii., Art. 17, Mr. Brent might find an elaborate description of the wild Canary, from the able pen of Dr. Heineken. If he should not be able to obtain easy access to that work, the following extract may suffice:—

"It is very familiar," says the Dr., in speaking of this bird, "haunting and breeding in gardens about the city. It is a delightful songster, with, beyond doubt, much of the Nightingale's and Skylark's, but none of the Woodlark's song; although three or four Skylarks in confinement are the only examples of any of these three birds in this island, and notwithstanding the general opinion, that such notes are the result of education in the Canary. It is in full song about nine months in the year. I have heard one sing on the wing, and passing from one tree to another, at some distance,—and am told that during the pairing season this is very common. Each flock has its own song; and, from individuals in the same garden, differing considerably, I suspect that the song of each nest varies more or less. After the breeding season they flock along with Linnets, Goldfinches, &c.; and are then seldom seen in gardens. An old bird caught and put into a cage will sometimes sing almost immediately, but seldom lives longer than the second year in confinement. The young from the nest are difficult to rear, dying generally at the first month. They cross readily with the domesticated variety; and the foregoing are larger, stronger, better breeders, and, to my taste, better songsters also, than the latter; but a pure wild song, from an island Canary at liberty, in full throat, and in a part of the country so distant from the haunts of men,—that it is, quite unsophisticated,—is unequalled in its kind by anything I have heard in the way of bird music."

To conclude with an *accurate* description of the wild Canary, which it should seem Mr. Brent desires; the following is taken from a careful comparison of the very numerous specimens in my collection:—

Entire length	. . . . .	5 inches 9 lines.
Length of bill, from forehead	. 0	$\frac{1}{2}$ "
Length of bill, from gape	. 0	5 "
Length of tarsus	. . . . .	0 8 "
Length of tail	. . . . .	2 " 3 "
From carpus to the end of the wing	2 " 11 "	

Forehead, crown, occiput, nape, deeply tinged with greenish-yellow. All the upper parts gray, tinged with greenish-yellow; in the centre of the feathers a broad streak of olive-brown. Rump greenish-yellow. Chin, throat, cheeks, neck, and breast, bright greenish-yellow. Belly and abdomen saffron-yellow, with longitudinal streaks of gray. Vent and under tail coverts yellowish-white. Quills and tail blackish-brown, bordered with yellowish-white. Bill light yellowish-brown on the upper, and dirty white on the lower mandible. Feet yellowish-brown. Female with less yellow, sometimes with hardly any.—E. V. H., *Hastings*.

SIDES OF AN ICE-HOUSE.

At page 133 of the November number, a correspondent tells you, he placed between the two walls of his ice-house a lot of bog-earth which had been subjected to the action of the sea, and wishes to know if he has done wrong. I think with you, he had better have left the space open; but a better plan than either would have been to have filled up the space with pounded charcoal. Some years ago, my then employer requested me to give directions for the building of an ice-house. I selected what I considered a good spot: my next object was to secure a proper drain and trap. The walls were as your correspondent describes his,—the space between filled up with the article I have named; the dome covered with clay three feet deep, and upon that, tufts of coarse grass. The house was finished by the end of June. When the season arrived to fill it, I placed over the bottom faggot-wood, upon this some clean straw; then the ice, well pounded; when two feet up the well, I sprinkled a little salt; and, from the rose of a waterpot, I gave two gallons of warm water. This, I confess, appeared to surprise my employer, who, I have no doubt, thought, if a new light had broken in upon me, it must have come as Humphrey Clinker's did—through a crack in my upper story. However, the same was repeated till I reached the kerb; all was well covered with clean straw; the doors closed; and the men well supped. At the end of the next summer I found the well half full, although the family used it very freely. I should tell you, during the same frost I built a stack in a good place out-of-doors, which served me till the following May.—W. B., *The Rectory, Herstmonceux, Sussex.*

JOINTS OF PIPES—WARMING A SMALL GREENHOUSE.

It may interest some of your readers to know that the "caulking" of a joint is not now done with putty, so as to occasion the difficulty named by "J. E. S., Strood," but with *India-rubber bands*, which are most effectual, and easily applied.

Your replies to "T. S. F.," on the subject of the "cheapest mode of warming a greenhouse," are clearly not what he wished for, as he expressly states he did "not want to build a fireplace." I have known a greenhouse, of about the size he names, effectually preserved from the effects of even last winter's frost by one of Joyce's stoves, which answered every end, and was much approved. The only difficulty was in procuring the "patent fuel," which was rather costly; but common coke did almost as well. I may also state that I have known a large tin pail of hot water, put in at night, keep itself and a small greenhouse warm for eight or nine hours, and especially if the pail have a cover, and be also protected by a matting or carpet over it. This will "keep out the frost."—H. J.

THE APIARIAN'S CALENDAR.—JANUARY.

By J. H. Payne, Esq., Author of "*The Bee-Keeper's Guide*," &c.

THE sun has again entered the ascending part of the ecliptic, and our bees will be among the first to discover it. Apiarians must, therefore, be upon the alert as well as their bees; for, upon examination, I expect the stocks, from the mildness of the autumn, will be found to have drawn largely upon their stores, and that feeding will be required earlier than usual.

EXAMINATION.—I would recommend, upon the first mild, bright day, that a careful examination of the stocks should take place, the floor-boards to be well cleaned, and, where feeding is found to be necessary, to prepare barley-sugar for the purpose.

FEEDING.—I have said, prepare barley-sugar for the purpose, because for spring-feeding I think it best, as well as being less trouble than liquid food. Feed, if possible, at the top of the hive. I have found a deep flower-pot-pan a convenient thing to cover over the barley-sugar when placed upon the top of the hive, but it requires to be fixed almost

air-tight, to prevent a current of cold air from passing through the hive, which is very injurious.

SHADE.—Many persons have advocated the sun's rays in winter not falling upon the hives. Mr. Taylor says:—"Where the hives stand singly, I have always seen the advantages of fixing before each a wooden screen, nailed to a post sunk in the ground, and large enough to throw the whole front into shade. This does not interfere with the coming forth of the bees at a proper temperature, and it supersedes the necessity of shutting them up when snow is on the ground. The screen should be fixed a foot or two in advance, and so as to intercept the sun's rays, which will be chiefly in winter towards the west side."

ENEMIES.—That determined enemy, the Blue Titmouse, is now carrying on its work of destruction, and should be destroyed, either by trapping or shooting.

GRUBS,

The English name of the hexapode worms, which are produced from the eggs of Beetles, are this year very abundant in old pastures. They are easily destroyed by dressing the land with fresh lime and earth, or by chimney-soot, and afterwards the pasture will be improved. Rooks or poultry are fond of these grubs, and, if encouraged, will soon devour and extirpate them.

Two years ago I had a field infested with the Grubs, I put my poultry into the field, the poultry got fat on them, and I afterwards dressed the field with fresh lime mixed with old earth, and there was not a grub to be found in the field. This autumn I found a great number of Grubs in another place. I manured with fresh lime and earth, destroyed the Grubs, and converted them into manure. The grass is beautiful.—E. N. N.

PROTECTING FRUIT TREES.

If not already done, no time ought to be lost in covering Apricot and Peach-trees, &c., with Yew branches, in situations where the wood is not sufficiently ripened to withstand the severe frost that we must expect before the winter is over.

If Yew is not to be had, Spruce and Silver Fir, and Laurel branches will do, only they are not so effectual for such covering as the Yew.

It may be said, why plant trees in such situations? I, for one, would not, but circumstances frequently compel us not to do what we wish, but what we can. Hence the reason for this safeguard, and, believe me, it will repay for the trouble.—D. FERGUSON, *Stowe, Buckingham.*

GOOSEBERRY CULTURE.

ASCERTAIN, before you prune your Gooseberry-trees, whether or not you have a stock of Bullfinches to contend with. Where there is a doubt upon this point, give the pretty creatures the benefit of it, and leave the pruning, however tempting this frosty weather is for the purpose, till later in the season. Why take their life, when you have a better chance of securing a crop by later pruning?

If I were to start Gooseberry growing in earnest, I would practice what my father did as far back as I can remember. I would not winter prune the trees at all, but treat them similarly to Peach-trees—disbud them in summer. This may appear a formidable practice to the uninitiated, but quite a different affair in practice, and I can honestly say that I never saw such crops anywhere equal to what I have seen produced by such culture. To those who grow them in pots I would strongly advise it; but let me add, the ground my father had to work upon was light, with a gravelly subsoil, and at this season he had about two feet of ground round the stem of the trees cleared, say three inches deep, and replaced with about two inches of good cow manure, and about an inch of the earth replaced on the top. This was usually practised, and it was duly rewarded at gathering time.—D. FERGUSON, *Stowe, Buckingham.*

FANCY PANSIES.

THESE deserve a word or two in their favour, and as yet no champion has been bold enough to come forward and lend a helping hand to introduce these strangers a little more into notice, as there seems to be a sort of pretty general dislike to them. But beware ye that attempt to call them down, and just bring to your recollection what was said about fancy Dahlias never coming to anything worth having, and see what favourites they have become. And, at a later day, about the spotted Geraniums being useless, ugly things! but see how gradually they are creeping into cultivation; and again, I say, beware, lest your pet show Geraniums get their noses put out of joint by these coarse and ugly-spotted sorts, as they are unjustly called.

But ere the reader's patience gets exhausted, let us return to our Pansies. They were first brought into notice two or three years since by Mr. John Salter, of Versailles Nursery, London, and were then, as may be easily imagined, little, badly-shaped flowers, although curiously enough marked; since then, they have gradually gone on improving in form, size, and colour. Following these, appeared several in Scotland, but although of the same class (Fancies), they were of an entirely different strain, being larger and brighter-coloured. The main difference of the two strains consisting in the marking—those of Mr. Salter being spotted, clouded, and striped, giving them sometimes a dirty and indistinct look, while those of the Scotch were blotched with bright colours upon a cream, yellow, white, gold, or straw grounds, and were also of a more vigorous habit. They will thrive well in any good, common garden soil not too rich, as that would cause the flowers to run and blend their colours. Neither should the stems be thinned off, as in the case with show varieties, as the more flowers they bear, the better in character they appear, which latter qualification admirably adapts them for bedding; and as they flower all the season, I think they are fairly entitled to a place in the front ranks of our best bedding plants. Subjoined is a list of the best twelve varieties; and, as I have seen them in flower, I can vouch for their characters.

Ariosto (Salter); rose and lilac, striped and ticked maroon.

Billy Barlow (Downie and Laird); pale sulphur, blotched with blue.

Bobo (Douglas); blue, shaded off to white at the edge.

Dandy Dinmout (Downie and Laird); bronze and gold, edged and blotched.

Fondango (Salter); white, clouded with reddish purple.

Gloire de Bellevue (Chauviere); white and blue, flaked and spotted.

Judy (Downie and Laird); white and bright ultramarine blue, blotched.

Leopard (—); yellow and chocolate blotched.

Miss C. Dunbar (Douglas); pure snow white, blotched, splashed, and flaked with bright cobalt blue.

Pantaloone (Salter); curiously marked, reddish purple, spotted and flaked.

Pirate Queen (Douglas); violet-purple, edged and blotched with bright chrome.

Reine de Pomachée (Chauviere); violet, red, and white.

—PANSYANA.

QUERIES AND ANSWERS.

GARDENING.

REMOVING BEES.

"I wish to remove an old stock of Bees to another situation in my garden. Will you, or one of your correspondents, inform me of the best time for such removal?—HENRY COPLAND."

[Were you going to remove your Bees two or three miles, we would say, Do it now; but the removal of a stock of Bees from one part of a garden to another is always attended with immense loss of life. The Bees, on coming out after their removal, will return to their old place, and perish by hundreds, nay, thousands. Now, at what time the stock can best spare such a diminution of number is the point to be ascertained: *not now, certainly*; perhaps the instant the first swarm has left the hive.]

OXALIC ACID A PROMOTER OF GERMINATION.

"Can you tell me the names of the enclosed Ferns?"

"Can you, also, tell me if there is any truth in the following recipe, which I copied from a newspaper many years ago? I did not succeed on the seeds I tried; but they were foreign ones:—Place the seeds in a bottle of oxalic acid till they germinate, which will be within twenty to forty-eight hours; then plant them. Seeds (proceeded the recipe) have been known to grow by this process though forty years old.

"I have heard that Melon-seeds, and those of the Cucumber, will produce barren flowers if not four or five years old. Is it the case with Vegetable-Marrow seeds? I had two very fine ones this year, 17 and 15½ lbs. respectively; and I want to know if the seed will do to sow next year. I have also read that kiln-drying the seeds will take the same effect as if they were old: if so, how hot should the kiln be?—J. B. WILLIN."

[Of the two Ferns, the smaller kind is the *Asplenium adiantum-nigrum*; and the larger kind, the *Aspidium filix-mas*, or *Lastrea filix-mas* of some botanists.

In Lindley's "Theory of Horticulture" it is stated, that a M. Otto, of Berlin, employs Oxalic Acid to make old seeds germinate. The seeds are put into a bottle filled with Oxalic Acid, and remain there till the germination is observable, which generally takes place in from twenty-four to forty-eight hours, when the seeds are taken out, and sown in the usual manner; of course, placed in a suitable temperature as the seeds may require.

Another way is to take a woollen cloth, and wet it with Oxalic Acid, on which the seeds are placed, and folded up, and put into a suitably heated structure. By this method seeds have been found to vegetate equally as well as in the bottle.

Essential care must be taken to remove the seeds out of the acid as soon as vegetation is observable. M. Otto found, that by this means seeds that were from twenty to forty years old grew; while the same kinds sown in the usual manner did not grow at all.

Melon and Cucumber-seeds will produce barren flowers if not four or five years old, and fertile flowers too. Some old gardeners have an idea that old Cucumber and Melon-seeds produce plants more fruitful than those produced from new seeds. The most luxuriant plant is produced from the good, sound, and plump new seed, which we prefer.

Kiln-drying seeds intended for sowing is a dangerous process. It is better to store it in bags, in a dry, warm situation, such as the wall over the kitchen-fire. Some gardeners carry Melon and Cucumber-seeds in their waistcoat pocket for weeks before they sow it.]

STRAWBERRIES IN APRIL—GROWING BEET AND RADISHES.

"As I have a nice lot of Keens' seedling Strawberries, from the earliest runners, in pots, for forcing, and plenty of leaves, with a two-light deep pit to spare, when should I plunge these pots in the leaves to have ripe fruit through April? as practised at Sion House, Vol. IV., page 125, of THE COTTAGE GARDENER.

"In Mr. Beaton's Report on the Horticultural Society's Show, Vol. XIII., page 470, he says, he would be very particular about *Radishes*; and there should not be a single fibre on them, except on the very point, which ought to be a small fibre. And likewise, on *Beet Root*, Mr. B. says, there is more art in growing a first-rate Beet than in forcing a prize Cucumber. I should be very glad if Mr. Beaton would give me his way of cultivating the Radish without a fibre, and the Beet Root from the seed to the table.—F. S., *Wills*."

[To have ripe Strawberries in April, the plants should be introduced into a Peach-house temperature about the second week in January; but, unless you are a good gardener, you will not have three dishes out of your two-light pit if you begin sooner than the end of February.

Mr. Beaton has no particular way of growing *Beet* and *Radishes* to propose or tell about, else you would have had it long ago; but, seeing that fibrous is the natural or wild state of these "roots," and to be fibreless is their highest

artificial pitch, why not insist on that condition? First of all, learn from the farmers how stone and Dutch turnips can be grown without a fibre, save the point of the rat's-tail-like root from the very centre of the bottom of the bulb; then apply the knowledge to the finer roots; and may you have success.]

TREATMENT OF HABROTHAMNUS FASCICULATUS, PASSIFLORA CÆRULEA, JASMINUM NUDIFLORUM, ROCK PLANTS, AND TROPÆOLUM TRIOMPHE DE GANDE.

"X. Y. Z." has a plant of *Habrothamnus fasciculatus*, just bought, about eighteen inches high, healthy, but apparently a little pot-bound. What should he do with it?

"Also *Passiflora Cærulea* and *Jasminum nudiflorum* in the same state.

"Which is the best time to purchase and plant out *Rock plants*, such as *Saxifrages*, *Aubrietias*, *Helianthemums*, and all the numerous tribes of herbaceous plants for this purpose?

"A plant of *Tropæolum Triomphe de Gande* bought in October, has few or no leaves, and looks anything but satisfactory: please give the treatment."

[*Habrothamnus fasciculatus*.—This, healthy, but pot-bound, should be potted about the middle or end of March; when three or four feet high it may be planted out against a pillar. We do not consider it equal to *elegans*.

Passiflora Cærulea and *Jasminum nudiflorum* may also be so treated. The other should go out-of-doors against a wall, instead of shifting it, but it will be as well protected over the winter in its small state.

Rock plants, and *herbaceous plants*, when to purchase and plant. For the general stock, we would prefer from the middle of March to the first week in April; unless they could be got by the middle of October. We would rather, in general, prefer the spring.

Tropæolum Triomphe de Gande has few or no leaves. Treatment has been given more than once; we presume it has been kept too cold. Take cuttings in May or June, strike in a close pit, or mild hotbed, pot off, harden, grow, and train out-of-doors until the middle or end of September, then house, and give an average of 45° at night, and 55° to 60° during the day, when there is sun.]

ACONITUM OR DELPHINIUM CHEILANTHUM.— HENS BECOMING BROODY.

"Please to tell me what the colour, height, and time of flowering of *Aconitum cheilanthifolium*. This variety is not named in THE COTTAGE GARDENERS' DICTIONARY.

"Is a *Cochin* hen likely to be broody without having ever laid an egg? My groom says it is common, but I cannot believe it.—ANNIE."

[The species of *Aconite* (*Aconitum*) and *Larkspur* (*Delphinium*) are very difficult to distinguish one from the other, and the limits of each are so difficult to define, that different authors apply them differently. Hence it is that one species is included in a different genus in many books. In THE COTTAGE GARDENERS' DICTIONARY we followed the more weighty authorities, and your plant is there called *Delphinium cheilanthum*. No proper authority ever wrote it *Cheilanthifolium*. It is a nice border flower, from Siberia, with a deep blue flower, and in rich soil will rise two feet or more; but we have seen it in bloom not fifteen inches high. The height a good deal depends on a dry or wet summer. It blows about Midsummer, earlier or later, according to the season. The roots are as poisonous as those of any of the group of *Aconites*. We never heard of a hen becoming broody before she had laid; and certainly such a phenomenon never occurred within our own experience.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

ESSEX. Dec. 27th, 28th, and 29th, at Colchester. Secs. Mr. G. E. Attwood, and Mr. W. A. Warwick. Entries close December 15th.

HANTS (SOUTH). 14th and 15th January, at Fareham. Sec. James James, Esq., Farcham. Entries close December 31st, 1855.

LIVERPOOL. 16th, 17th, and 18th of January. Sec. W. C. Worrall, Esq., 6, Lower Castle Street. Entries close December 21th.

PRESTON AND NORTH LANCASHIRE. Jan. 9th and 10th, at Preston. Secs. Messrs. Burnett, Leigh, and Hayhurst, Preston.

VALE OF AYLESBURY. January 2nd and 3rd. Secs. J. D. Muddiman, and Jas. Allen. Entries close December 20th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

WE again treat of the great Birmingham Exhibition; because, on reflection, we find there are things that escaped us in the hurry of our last week's report, and because many topics of interest are connected with the conclusion, which was hardly arrived when last we went to press. Our remarks will, of necessity, be discursive, and we shall endeavour to speak of all that may interest the general reader, or be of use to the amateur or exhibitor.

We will begin by congratulating the poultry world on the accession of numbers of the aristocracy and higher classes to the ranks of those who compete, and we do so, because, if experiments are to be made by which the less favoured by fortune are to benefit, they must be made by those who have the means and time to devote to them. It has been so in cattle, in agriculture and flowers, and it will be so in poultry. The attendance of the upper classes during the show, and the interest they took in it, were highly gratifying. *Dorkings* seemed their favourites, as Lord Robert Grosvenor took the second prize for adults, and the Countess of Chesterfield the first for single Cocks.

How many times we have written and printed that fowls sent to exhibitions with visible marks will be disqualified, and yet there were numerous instances. It gives much pain to the judges, and often loses a prize for the owners. We cannot too strongly urge, that however desirable it may be so to distinguish them in the yard as to prevent their getting the mark off, yet it should be removed by the owner before they are packed up.

There was an excellent show of Cottager's Poultry,—far the best we have ever seen,—and birds of every breed were there. Good *Dorkings*, *Spanish*, *Cochins*, *Hamburghs* of all sorts, and *Game*. Many of them would have stood well in general competition. We rejoice at this; and nothing would give us more pleasure than to see the first prizes scattered, gladdening alike the hearts of the noble and the poor. Many a good Cottager's Christmas dinner will be the result both of the prizes and the sale of the pens.

And this brings us to the subject of sales. The amount realized for poultry sold was £1,150. Now, if it be taken into consideration that there is a great reduction in the price of nearly every breed, as compared with former years, if we except the *Dorkings*, it will be seen that the number of birds sold must be very great. It was a good idea to allow the pens to be divided, because it suits both seller and buyer. Many will gladly purchase one bird at a good price, who would not like to buy four; and many an exhibitor can spare either cock or hen, who cannot part from them all. It is in these things the Birmingham Council become the oracle of the poultry world. They are firmly seated, and their position enables them to try experiments which less important societies may copy, but dare not originate; and this is another of their claims on the mass of amateurs.

It is fair to suppose that the judges, after spending eleven mortal hours by themselves in the vast building, and scanning every class, pen and bird, as closely as knowledge and experience will enable them, are well qualified to speak of the exhibition as a whole. Let them do so for themselves.

"The Judges of the Poultry Department have abstained from any commendatory notice of the different classes, until the conclusion of their work.

"They now deem it their duty to record, that with the exception of the Black Cochins, they have never seen the Show equalled."

But there may be some who would like to know more about weights in those classes where that quality is most essential. We will begin with

Geese.—And here let us mark a curious fact. Four years' since, the White Geese carried all before them for a time, especially those of the Rev. John Robinson. These were eclipsed by brown birds, belonging to Mrs. Towneley Parker. Mr. Breavington came to the rescue of the white, and then gave place to Messrs. Davies and Edwards, and Mrs. H. Fookes, who have everywhere showed grey and mottled birds of greater weight than the white.

	lbs.		lbs.	lbs.
First Prize Pen of White Gander	24½	Geese	20	19½
Second ditto ditto	18½	Ditto	14¾	16
Third ditto ditto	19	Ditto	14	15
First Prize Pen of Grey Gander	25	Geese	24½	24
Second ditto ditto	23	Ditto	20	19
Third ditto ditto	22	Ditto	20	18

Aylesbury Ducks were not so heavy as at Dorchester, the first prize pen weighed 29½lbs., the second 29lbs., and the third 28½lbs. The average of the commended pens was above 25lbs., giving 6½lbs. for each duck. A few years since 4½lbs. was considered a large one, and let it be borne in mind this increase in weight is entirely caused by shows having directed attention to the subject.

In adult *Turkeys* the three birds in the first prize pen weighed 55½lbs., second 52½lbs., third 51lbs.

We have been accustomed, for some years, to witness the interest taken in poultry; but we were not prepared for such an attendance as was seen at Bingley Hall in the show week. Let numbers speak.

The recorded entrances exceeded 35,000 people, and the money taken at the doors amounted to £1,592. Seventy bags of food were consumed by the poultry, exclusive of bread, &c.

As usual, every member of the Committee was at his post, and every effort was made to ensure satisfaction to all.

THE BIRMINGHAM POULTRY SHOW.

FROM various sources we have received the following notes, relative to this recent great Exhibition.

It appears that the judges were divided into two parties, and to each party were submitted different classes of fowls, as follows:—

HAMBURGH, POLISH, GAME (including Classes for single Cock); *MALAY*, Class Forty-three; and *COTTAGERS' POULTRY*:—

The Reverend WILLIAM WRIOTHESLEY WINGFIELD, Gulval Vicarage, Penzance.

HENRY HINXMAN, Esq., Durnford House, Salisbury.

Mr. THOMAS CHALLONER, Burnt Leys, Whitwell, near Worksop, Notts.

DORKING, SPANISH, COCHIN-CHINA, BRAHMA POOTRA (including Classes for Single Cocks); *BANTAMS, GEESE, DUCKS, and TURKEYS*:—

The Reverend ROBERT PULLEINE, the Rectory, Kirby Wiske, near Thirsk.

GEORGE JAMES ANDREWS, Esq., Dorchester.

Mr. JOHN BAILY, Mount Street, Grosvenor Square, London.

It would be better, we think, to divide the judges into three parties. Let each party have one-third of the

classes submitted to them; and when they had selected all the pens which they considered worthy of prizes, or commendations, then for the whole of the six judges to sit in judgment, as to how the prizes and commendations should be appropriated to the pens selected in each class.

The *Game* classes, we noticed last week, as being very superior. "All varieties," says the *Midland Herald*, "were especially good, but the old fault seems still persisted in by thoughtless exhibitors, to their own inevitable loss and discomfiture, and causing endless increase of toil and exertion to the Committee of Management. We allude to the extreme folly of placing fowls unknown to each other, or only partially acquainted, in the same pen. At the outset, they appear, it is readily admitted, perfectly at home with each other; but the slightest tendency around them to quarrel instantly induces the most fearful and totally unmanageable pugnacity among those thus only recently acquainted; and injury which cannot be made good by the most anxious and extended after-care takes place in the interval of only a few seconds. Strange to say, the hens are decidedly the most impulsive and expeditious in this "scalping" process; and we especially noticed a valuable hen that was actually torn from the body to the very top of the head, from a single blow by one of her infuriated female associates, although parties were in the very act of taking her away. To be safe from such certain contingencies, all fowls should have been accustomed to each other, at the least, for the space of one month prior to exhibition.

On entering the Exhibition, the remarkable cleanliness and comfort which pervaded the whole of the Poultry was the universal theme of congratulation, and proved what the untiring determination of Mr. Edward Hewitt could effect. Early and late at his post, he enforced the strictest attention to their duties of all placed under his authority; and the result proved that, though decidedly one of the largest and most valuable collections that have yet been placed under the public eye, everything was carried out with a care and rectitude that we but rarely witness, even at the most limited of our Poultry Exhibitions."

The nine Silver Prize Cups were manufactured by Messrs. Mapplebeck and Lowe, of the Bull-ring, Birmingham. The general form of each cup is Grecian, the base surrounded by a fillet of the acanthus leaf, and the echinus, the stem being relieved by a boldly-moulded boss, enriched by the bead ornament. The latter is repeated on the edge of the cover, which is surmounted by a tasteful floral group in frosted silver. On one side of the cup is a panel, containing a group of poultry, with a background of farm-buildings, in *basso relievo*, encircled by a wreath composed of ears of barley, which also forms the border of the space on the opposite side, appropriated to the customary inscription recording the name of the successful exhibitor, together with the class in which the honourable distinction at the bestowal of the judges has been gained. Mr. Ottley, the medallist of the Exhibition, offered a gold medal of the value of ten guineas, as an extra prize for the best pen of Polish fowl of any colour. The figures of the birds introduced upon the obverse are, of course, those of the breeds for which the premium is offered. The reverse contains a figure of Justice holding a sword and balance, together with a circular shield, on which her decision was recorded. Mr. Ottley likewise produced a silver medal, of the large dimensions of 2¾ inches diameter, to be taken by such of the gainers of first prizes as may prefer it to the £3 money premium, which it equals in value. The subject of the obverse is a group of poultry, consisting of Cochin, Dorking, Spanish, Hamburgh, Polish, and Game fowl; the reverse bearing a wreath of ears of wheat and barley intertwined.

CIRENCESTER POULTRY SHOW.

Your correspondent who furnished you with the report of the Cirencester Poultry Show (page 190), has made an error in the list of prizes in the adult class of Dorkings; no such name as "Moons," is there mentioned, and the third prize went to birds belonging to me.

There is a second mis-statement in the report, viz., that no prize lists were published by the managers of the show. This is certainly wrong, because the Honorary Secretary forwarded me a prize list the day after the show, and I believe other exhibitors were similarly favoured.

But amid all the panegyric, your reporter might surely have found room for a word in praise of the courtesy and urbanity of Mr. Trinder, the Honorary Secretary, whom I have heard spoken of both by exhibitors and officials connected with the show in the very highest terms.—FRED. A. PHILBRICK.

[We are sure that our reporter will regret the errors and omissions specified. Our best amends will be to publish the entire list of Mr. Baily's awards, which were as follows:—

DORKINGS.—*Birds hatched before 1855.*—First, A. H. Leybourn Popham, Esq., Purley Park. Second, Mr. George McCann, Malvern. Third, F. A. Philbrick, Esq., Colchester. Highly Commended.—Rev. E. Read Davies, Alasworth. Mrs. Grimwood, Stanton House. Commended.—Mr. Thomas Lyne, Malmesbury. *Birds hatched in 1855.*—First, W. Belcher, Esq., Abingdon. Second, J. R. Rodbard, Esq., Aldwick Court. Third, Hon. Mrs. Howard, Milbourn. Highly Commended.—Rev. H. G. Baily, Swindon. Mr. W. Bartham, Henley-in-Arden (two pens). Miss Milward, Bath. Mrs. Pettat, Ashe Rectory. A. H. Leybourn Popham, Esq., Purley Park. Commended.—Lord De Maulcy, Down Ampney House. Mr. W. Hewer, Sevenhampton. Mr. Thomas Hooper, Staunton. Miss Millward, Bath.

SPANISH.—*Birds hatched before 1855.*—First, Mr. Daniel Parsley, Bristol. Second, R. P. Davies, Esq., Thornbury Park. Third, James Jenner, Esq., Lewes. *Birds hatched in 1855.*—First, J. R. Rodbard, Esq., Aldwick Court. Second, W. Saunders, Esq., Cowes, Isle of Wight. Third, Mrs. L. C. Stow, Bredon.

COCHIN-CHINA.—*Birds hatched before 1855.*—First, Mrs. B. J. Ford, Ide, Exeter. Second, Miss Cripps, Preston. Third, Rev. E. A. Daubeney, Eastington. *Birds hatched in 1855.*—First, Mr. W. Joshua, Perrot's Brook. Second, J. R. Rodbard, Esq., Aldwick Court. Third, Mr. Thomas Hincks, Wolverhampton. Commended.—Miss Cripps, Preston.

BRABMA POOTRA.—First, Mr. Arthur Snow, Cirencester. Second, R. H. Bush, Esq., Clifton. Third, W. Saunders, Esq., Cowes, Isle of Wight.

MALAY.—First, Mr. James Leighton, Cheltenham. Second, Mr. Thomas Lyne, Malmesbury. Third, Mrs. John Worsey, Leamington. Highly Commended.—Mr. J. G. Attwater, Halling Wood Farm. Commended.—Mr. W. Tort, Tenbury.

GAME FOWL.—*Birds hatched before 1855.*—First, N. N. Dyer, Esq., Bredon. Second, N. N. Dyer, Esq., Bredon. Third, Mrs. Taylor, Strensham Court. Highly Commended.—Mr. Wm. Dawson, Birmingham. J. R. Rodbard, Esq., Aldwick Court. Commended.—Mr. W. G. Bennett, North Cerney. *Birds hatched in 1855.*—First, N. N. Dyer, Esq., Bredon. Second, N. N. Dyer, Esq., Bredon. Third, Mr. W. Dawson, Selby Oak, Birmingham. Highly Commended.—T. W. Pearse, Esq., Bedford. J. R. Rodbard, Esq., Aldwick Court. Commended.—Mr. George Lane, Cirencester.

HAMBURGH.—First, Mr. Henry Thompson, Windsor. Second, Mrs. Worsey, Leamington. Commended.—Mrs. Pettat, Ashe Rectory.

POLAND.—First, Miss M. Bury, Bellbroughton. Second, Miss M. Bury, Bellbroughton.

ANY OTHER DISTINCT BREED.—First, Mrs. Barwick Baker, Hardwick Court. First, Chas. Ballance, Esq., Taunton. First, Mrs. Grimwood, Staunton House.

BANTAMS.—First, Mr. Thos. Portch, jun., Bristol. Second, Thomas Jas. Cottle, Esq., Cheltenham. Third, F. G. Dutton, Esq., Lydiard. Highly Commended.—Thomas J. Cottle, Esq., Cheltenham. Mr. Thomas Portch, jun., Bristol. Commended.—J. H. D. Baily, Esq., Eton. Mrs. Taylor, Strensham Court.

TURKEYS.—First, J. R. Rodbard, Esq., Aldwick Court. Second, A. Kingscote Cornwall, Esq., Ashcroft.

GESE.—First, R. P. Davies, Esq., Thornbury Park. Second, Mr. William Hewer, Sevenhampton.

DUCKS (White Aylesbury).—First, Rev. G. H. Richards, Somersford. Second, Mrs. Blandford, Upton. Highly Commended.—W. Belcher, Esq., Abingdon. Mrs. B. J. Ford, Ide, Exeter. J. W. Pearse, Esq., Bedford. Mrs. L. C. Stow, Bredon.

ANY OTHER VARIETY.—First, Mr. J. W. Squire, Barton Mill, Suffolk. Second, W. Saunders, Esq., Cowes, Isle of Wight.

BRIGG AND LINDSEY POULTRY SOCIETY'S SHOW.

(Communicated.)

This Society held their Second Annual Exhibition in the Corn Exchange, Brigg, on Wednesday, November 28th. The

room was a very good one for the purpose, there being plenty of space and light. The entries, which were much more numerous than at the last Show, numbered about 230 pens; amongst which were some very fine and well-bred birds.

The *Grey Dorkings* were a splendid class, there being scarcely an indifferent fowl amongst the whole lot. The *White Dorkings* were not first rate. The *Buff Cochins* classes were well filled, and not a few of the pens were first class. Mr. Taylor's first prize pen was remarkably fine. The other *Cochin* classes contained nothing worthy of comment. The *Spanish* were truly a wretched lot, the worst class in the whole Show. Among the *Game*, the *Black-breasted Reds* numbered the most, as well as the best pens. The first-prize pen of Mr. Turner's would have done their owner credit at any Show, as they were shown in beautiful condition and feather. In the *Golden* and *Silver Poland* class, both prizes were taken by Mr. Boothby, with some very beautiful and well-bred *Silver* birds. In the class for *any other variety of Poland* fowl, Mr. Barnard took first with a good pen of *White-Crested Blacks*; and the second, by Mr. Boothby, with a very handsome pen of *Buff Polands*. The *Pencilled Hamburgs* were good, but the *Spangled* were inferior. The first prize in the class for *any other distinct breed* went to a good pen of dark blue *Andalusians*, and the second to some *Malays*. In the *Bantam* classes were some nice birds, but nothing uncommon. Among the *Cross breeds*, the first-prize pen would have passed at any Show for good *Brahma Pootras*. They had yellow and well-feathered legs. The *Geese* and *Turkeys* were not particularly good, but the *Ducks* were very good, especially the *Aylesburies*.

COLOURED DORKINGS.—First, P. W. Barnard, Esq., of Bigby. Second, Sir J. Nelthorpe, Bart., of Seawby. *Chickens.*—First, P. W. Barnard, Esq., of Bigby. Second, Mr. J. H. Brett, of Market Rasen. Judge's prize to Mr. Jos. King, of Redbourne.

WHITE DORKINGS (Chickens).—First, Mr. J. Campbell, of Redbourne. Second, The Rev. J. T. Hales Tooke, of Seawby.

COCHIN (Buff or Cinnamon).—First, Mr. F. Nicholson, of Wootton. Second, Mr. C. Nicholson, of Staniwells. *Chickens.*—First, Mr. H. H. Taylor, Newland, near Hull. Second, Mr. J. Turner, Ulechy. Judge's prize to Mr. C. Nicholson, Staniwells.

COCHIN-CHINA (Any other variety).—First, Mr. B. L. Wells, Newland. *Chickens*, variety.—First, Mr. Wm. Stones, Hull. Second, Mr. B. L. Wells, Newland. Highly Commended.—Mr. D. B. Turner, Hull.

SPANISH.—First, Mr. Nevil Glew, Moortown. Second, Mr. H. H. Taylor, Newland. *Chickens.*—First, Mr. H. H. Taylor.

GAME (Black-breasted and other breeds).—First, Mr. J. Turner, Ulechy. Second, Mr. J. Wright, North Wheatley, near Retford. Judge's prize, Mr. J. Turner, Ulechy.

GAME (Any other variety).—First, Mr. F. Wright, North Wheatley. Second, Mr. W. Nicholson, Brigg. Commended.—Mr. Wm. Hill, Brigg.

POLAND (Gold or Silver).—First and Second, Mr. G. W. Boothby, Louth.

POLAND (Any other variety).—First, E. H. Barnard, Esq., Bigby. Second, Mr. G. W. Boothby, Louth.

HAMBURGH (Gold or Silver-pencilled).—First and Second, P. W. Barnard, Esq., Bigby. Judge's prize to Chas. Smith, Esq., Caistor.

HAMBURGH (Gold or Silver-spangled).—First, P. W. Barnard, Esq., Bigby. Second, Mr. P. Burniston, Brigg.

ANY DISTINCT BREED NOT PREVIOUSLY CLASSIFIED.—First, Mr. G. W. Boothby, Louth. (For Blue *Andalusians*.) Second, Mr. T. Kirby, Barnetby. (Malays.)

ANY CROSS BREED.—First, Miss J. E. Tong, Beekingham. Second, Mr. T. Marris, Ulechy.

BANTAMS (Gold or Silver).—First, S. Slater, Esq., North Carlton. Second, Mr. G. W. Boothby, Louth.

BANTAMS (Any other variety).—First, Miss Corbett, Elsham Hall. Second, Mr. Geo. Brice, Barton.

DORKING COCK.—First, Mr. J. H. Brett, Market Rasen.

COCHIN-CHINA COCK.—First, Mr. W. Owston, Brigg. Commended.—Mr. W. Nicholson, Brigg.

GAME COCK.—First, J. B. Slater, Esq., Cammeringham.

COCK OF ANY BREED.—First, Mr. G. W. Boothby, Louth.

BEST HEN.—First, Sir Chas. Anderson, Bart., Lea Hall.

GESE.—First, J. B. Slater, Esq., Cammeringham. Second, Mr. Chas. Nicholson, Staniwells.

DUCKS (White Aylesbury).—First, P. W. Barnard, Esq., Bigby. Second, The Rev. C. Hudson, Sandby, near Gainsboro'. Highly Commended.—The Rev. C. Hudson, Sandby, near Gainsboro'. Commended.—Mr. J. Turner, Ulechy.

DUCKS (Rouen).—First, Mr. Thos. Marris, Ulechy Chase. Second, Mr. F. Nicholson, Wootton. Commended.—Mr. R. Munday, Wrawby.

DUCKS (Any other variety).—First, Mr. J. P. Waite, Limber. Second, Mr. C. Nicholson, Staniwells.

TURKEYS.—First and Second, S. Slater, Esq., North Carlton.

EXTRA STOCK.—Judge's prize to Miss M. E. Tong, Beekingham, for six Brahma Pootra chickens; ditto to Mr. W. Owston, for Game cock and two hens: ditto to W. Torr, Esq., of Aylesbury, for Rouen ducks; ditto to Mr. W. Hall, of Brigg, for three Cochin-China pullets. Jas. Smith, of Brigg, for four Game pullets, was highly commended.

NOTTINGHAMSHIRE POULTRY ASSOCIATION.

Exhibition held at Southwell, the 19th and 20th of December, 1855.

SPANISH.—Exceeding one year old.—3. First, Mr. J. Dixon, Cotgrave, Notts. 4. Second, J. Wright, Esq., Hulland Hall, Ashbourne, Derbyshire. Commended.—6. Lord A. E. Hill, M.P., Norwood Park, Southwell. *Chickens of 1855*.—16. First, Mr. S. Sneap, South Collingham, Notts. 13. Second, Mr. J. Dixon, Cotgrave, Notts. Highly Commended.—20. Mr. T. B. Stead, Leeds.

DORKING.—26. First, H. Smith, Esq., The Grove, Cropwell Butler, Notts. 24. Second, Rev. G. Hustler, Appleton, Tadcaster, Yorkshire. Highly Commended.—29. J. Hitchman, Esq., Mickleover, Derby. 30. Mr. Camm, Farnsfield, Notts. Commended.—23. Mr. James Drewry, Newton Mount, Burton on Trent. 33. H. Bromley, Esq., Stoke Hall, Notts. 34. Mrs. Sherwin, Bramcote Hills, Notts. *Chickens of 1855*.—50. First, H. Smith, Esq., The Grove, Cropwell Butler, Notts. 46. Second, Mr. A. W. Warrand, Westhorpe, Southwell. Highly Commended.—42. Mrs. Parkinson, Knapthorpe, Notts. 49. Mr. R. Hawksley, jun., Southwell. 51. H. Smith, Esq., The Grove, Cropwell Butler, Notts. 52. Rev. G. Hustler, Appleton, Tadcaster, Yorkshire. Commended.—47. Mr. A. W. Warrand, Westhorpe, Southwell. 54. Mr. James Drewry, Newton Mount, Burton-on-Trent. (A most excellent class.)

COCHIN-CHINA (Cinnamon and Buff).—Exceeding one year old.—61. First, Mr. Dawson, Hopton-Mirfield, Yorkshire. 60. Second, Mr. J. Townrow, Southwell. *Chickens of 1855*.—64. First, Mr. Staley, North Collingham, Notts. 63. Second, Mr. E. Turton, South Collingham, Notts.

COCHIN-CHINA (Brown or Partridge-feathered).—Exceeding one year old.—77. First, Mr. R. Swift, Southwell. 76. Second, Mr. Bradwell, Southwell. Highly Commended.—72. Mr. G. Kirkland, Southwell. Commended.—74. Mr. T. Bridges, Croydon, Surrey. *Chickens of 1855*.—81. First, Mr. T. B. Stead, Leeds. 80. Second, Mr. E. Hill, Southwell. Commended.—78. Mr. T. Bridges, Croydon, Surrey.

COCHIN-CHINA (White).—82. First, Mr. R. Chase, Birmingham. 83. Second, Mr. Dawson, Hopton-Mirfield, Yorkshire. *Chickens of 1855*.—90. First, Mr. Staley, North Collingham, Notts. 88. Second, Mr. V. Wilkinson, Southwell. Highly Commended.—87. Mr. V. Wilkinson, Southwell. Commended.—89. Mr. Sneap, South Collingham, Notts.

COCHIN-CHINA (Black).—92. Prize, Mrs. Daft, Halloughton, Southwell. *Chickens of 1855*.—94. Prize, Mr. Camm, Farnsfield, Notts.

BRAHMA POOTRA.—No competition.

GAME FOWL (Black-breasted and other Reds).—Exceeding one year old.—100. First, Mr. W. Mellows, Carburton, Ollerton, Notts. 106. Second, Mr. A. Cottam, Southwell. (Brown Red.) Highly Commended.—104. Mr. R. R. Hawksley, Southwell. (Brown Red.) Commended.—99. Mr. Doncaster, Maplebeck, Notts. 105. Mr. A. Cottam, Southwell. *Chickens of 1855*.—114. First, Mr. Doncaster, Maplebeck, Notts. 125. Second, Mr. R. Swift, Southwell. Highly Commended.—108. Mr. W. Mellows, Carburton, Ollerton, Notts. 110. Mr. H. Marshall, Cotgrave, Notts. 111. Mr. H. Marshall, Cotgrave, Notts.

GAME FOWL.—Any other variety.—129. First, Rev. T. Hassall, Shelford Manor, Notts. (Blue Game.) 127. Second, Mr. M. Ridgway, Dewsbury, Yorkshire. Commended.—131. Mr. Camm, Farnsfield, Notts. (White.) 132. Mr. Parr, Farnsfield, Notts. (Pile.) *Chickens of 1855*.—145. First, J. Wright, Esq., Hulland Hall, Ashbourne, Derbyshire. (Duckwing Grey.) 139. Second, Mr. Doncaster, Maplebeck, Notts. Highly Commended.—136. Mr. Camm, Farnsfield, Notts. 137. Mr. Camm, Farnsfield, Notts. Commended.—142. Mr. Parr, Farnsfield. 148. J. Hitchman, Esq., Mickleover, Derby. (Duckwing.) (All the Game classes very meritorious.)

GOLDEN-SPANGLED HAMBURGH.—Exceeding one year old.—149. Prize, Mrs. Howitt, Farnsfield, Notts. *Chickens of 1855*.—152. Prize, Mrs. Cheadle, Dunham-on-Trent, Notts.

SILVER-SPANGLED HAMBURGH.—Exceeding one year old.—Prize withheld. *Chickens of 1855*.—160. Prize, Mr. W. H. Malpas, Nottingham. Commended.—158. Mrs. Cheadle, Dunham-on-Trent, Notts.

GOLDEN-PENCILLED HAMBURGH.—Exceeding one year old.—161. Prize, Mr. G. Daft, Halloughton, Southwell. *Chickens of 1855*.—166. Prize, E. V. P. Burnell, Esq., Winkbourne Hall, Southwell.

SILVER-PENCILLED HAMBURGH.—Exceeding one year old.—170. Prize, Mr. J. Faulkner, Brethby Farm, Burton-on-Trent. *Chickens of 1855*.—183. Prize, Mr. T. Marshall, Cotgrave, Notts. Highly Commended.—180. Mr. H. Marshall, Cotgrave, Notts. Commended.—179. H. D. Bayley, Esq., Ickwell House, Biggleswade, Beds.

POLAND FOWL (Best any colour).—Exceeding one year old.—188. Prize, Mr. M. Ridgway, Dewsbury, Yorkshire. Highly Commended.—189. Mr. J. W. George, Beeston Podge, Notts. (Golden.) *Chickens of 1855*.—192. Prize, Mr. Staley, North Collingham, Notts. (Silver.) Commended.—195. Mr. M. Ridgway, Dewsbury, Yorkshire. (Silver.)

HYBRIDS OR CROSS-BRED.—Exceeding one year old.—197. Prize, Mr. J. H. Bradwell, Southwell. (Second cross from the Cochin and Game.) *Chickens of 1855*.—202. Prize, Mr. W. Morris, Cotgrave, Notts. (Dorking and Cochin.) Highly Commended.—203. Mr. A. W. Warrand, Southwell. (Dorking and Cochin.)

BANTAMS (Gold-laced).—205. Prize, H. D. Bayley, Esq., Ickwell House, Biggleswade, Beds.

BANTAMS (Silver-laced).—207. Prize, H. D. Bayley, Esq., Ickwell House, Biggleswade, Beds.

BANTAMS (Black).—212. Prize, Mr. R. Hawksley, jun., Southwell. (A good class.)

BANTAMS (White or any other variety).—214. Prize, H. D. Bayley, Esq., Ickwell House, Biggleswade, Beds. (Black-breasted Red Game.) Commended.—215. Mr. J. Bausor, Southwell. (White.) 218. Rev. T. C. Cane, Brackenhurst, Southwell. (Muffed Bantams.) 219. Mrs. Haffenden, Langford Hall. (Partridge Bantams.) (A very superior class.)

GEESSE.—223. Prize, Mr. J. Faulkner, Brethby Farm, Burton-on-Trent. Highly Commended.—220. H. Bromley, Esq., Stoke Hall, Newark. (White.) 224. Mr. Marriott, Bleasby, Notts. (Grey.) 227. Mrs. Sherwin, Bramcote Hills, Notts. 228. A. Haffenden, Esq., Langford Hall. Commended.—225. Mr. Marriott, Bleasby, Notts. (The whole class meritorious.)

DUCKS (White Aylesbury).—231. Prize, Mrs. Cheadle, Dunham-on-Trent, Notts. Highly Commended.—230. Mr. E. Turton, South Collington, Notts. 232. Rev. T. C. Cane, Brackenhurst, Southwell. 233. The Countess of Chesterfield, Brethby Hall. (A good class.)

DUCKS (Rouen).—237. Prize, Mrs. Parkinson, Knapthorpe, Notts.

DUCKS (Any other variety).—241. Prize, Mr. G. Daft, Halloughton, Southwell. (Nottinghamshire Ducks.) Highly Commended.—238. Rev. E. Manners, Goadby Marwood Rectory, Melton-Mowbray. (Call.)

TURKEYS.—245. Prize, Mr. Daft, Halloughton, Southwell. Highly Commended.—246. Mr. J. Faulkner, Brethby Farm, Burton-on-Trent. Commended.—244. Lord A. E. Hill, M.P., Norwood Park. (Black Norfolk.) 248. Mr. G. Daft, Halloughton, Southwell.

TURKEYS (Points of 1855).—252. Prize, H. Bromley, Esq., Stoke Hall. Highly Commended.—253. Lord A. E. Hill, M.P., Norwood Park. 254. Mr. Halloughton, Southwell. 255. Mrs. Haffenden, Langford Hall. (Cross between Norfolk and American.) Commended.—249. Mrs. Sherwin, Bramcote Hill, Notts. 251. Mrs. Daft, Halloughton, Southwell. (This class of unusual superiority.)

COCHIN-CHINA FOWLS.

In this part of the world the prejudice is very strong against the Shanghaes, as they are considered very delicate, and so subject to have their feet frost bitten, and almost all who have tried them have given them up; but, as I have had some fowls sent me, I am most anxious to give them a fair trial; though I doubt if my birds are anything very good, which I at first hoped they would be. My only knowledge is from the "Poultry Book," as I never saw any that could be called pure bred. In the first place, I am recommended, on all sides, to wrap round their legs something woollen, and never to let them out-of-doors during snow or severe frost. The first appears to me worse than useless; for when the wrapping became wet, which it would soon do with the fowls going about, the cold from the damp would be colder to the legs,—there is, also, no such advice in the "Poultry Book." We have had snow on the ground since last Wednesday; however, I have let them out each day, but not till between ten and eleven o'clock. One pullet, which has been laying six weeks, continues regularly each day; but the other, which has only laid three weeks, since the cold weather, only lays alternate days. Have I done right not to follow the advice given me? I have not been sparing in food, and given warm, this last week; they are always fed by myself, except the first corn in the morning. Between ten and eleven o'clock, since the cold weather came, they have had hot barley-meal porridge, before that rice: between one and two o'clock, potatoes mixed with third-flour, bran, barley, or oatmeal; and at roosting time, barley-meal made into a erumbly state with hot water. Do you consider the following sufficient in quantity for a week, for two pullets and a cockerel, seven months' old;—

2½ lbs. barley-meal, 3 lbs. barley,
5 lbs. potatoes, 1 lb. rice and bran.

I am anxious to give all that is necessary, but can ill-afford to be wasteful; and also am keeping an exact account of the expense, and weigh out everything myself.—AN OLD SUBSCRIBER, *Morayshire*.

[Never mind Morayshire prejudices; for in spite of them Cochin-China fowls are as hardy as any other breed, if not hardier. On no account wrap up their feet in any manner.

Let them have a dry shed, with some sand in it, where they can bask when rain, snow, or frost, prevent their having that enjoyment abroad. Giving them warm food is quite needless. Your rations allowed we think quite enough,—if they have plenty of grass or other green food. No poultry will be healthy without green food.]

AMBITION'S LADDER.

BEGINNING with the boy, and ending with the man, or with the girl, and ending with the woman, there is a spirit of emulation throughout;—a seeking after excellence, a getting sought after, which permeates our entire natures. With the harsher sex it shows itself first in the best law, the largest box-top; after a few years, rabbits, a nice little terrier, a ferret, a gun, fishing-rod, &c. All these are emulatory excitements, and conducive to the healthy relaxation from study; comparatively speaking, these are speculations of a no very expensive outlay, for youth is always changing: but by-and-by, in riper years comes that irresistible fancy for horses, a never-ending expense, and never-to-be-satisfied mania, often leading to bad results from the enormous calls on the purse. By some lucky chance you get three screws, following, palmed off on you. Your depending man marries the best fellow-servant of the establishment; the lady, or ladies of the house refuse to drive with your *never-to-be-depended-on* horse; and you see, very clearly, your love for horse-flesh has upset the whole household. 'Tis summer, and you find your party, at a horticultural meeting, in a poultry marquee, adjoining a floricultural one, admiring a lot of fowls (a thing never dreamt of); the Hamburgs and Polands, with their beautiful crests, combs, and plumage, attract, and justly so, a great deal of attention. The bold Game and Malay, as, also, the odd-looking Spanish, the Brahma and other Chinese birds, together with the Bantams and Pigeons, pass in review; till, at length, you actually become the purchaser of pen 192. They gain a prize for you at the next show, however, although unsuccessful at your other attempts to obtain a position, you have gained, by observation, experience, and contact with congenial spirits, an intimate knowledge of this branch of natural history; and, although the study commenced in caprice, and even contrary to your taste, it has the elements of emulation; and, therefore, unwittingly forces itself on your notice and time. And others, watching your quiet attention and perseverance, so diametrically apart from the expensive and ever-wearing scenes of horse fancying, readily take part in your new fancy, and work with you. Chickens and eggs are always at hand; the cob, from being more naturally treated, *i. e.*, less corned, and more worked, is steadier; the winter arrives; the Cochins lay an egg every day but one in the week, and are ready as early as you like in the spring to sit on the eggs of your favourite sort, accommodating you with the chickens if you have the Asparagus; and all these advantages, alike open to the emulation of either sex, stand boldly forth as, indeed, something worth being excited about, because it really is very emulatory, inexpensive, and useful.—W. H.

CHINESE GEESE AND THEIR HYBRIDS.

THESE Geese, which are distinguished by more *aliases* than a thief at the Old Bailey, have long been favourites of mine. I admire the modest arrangement of colour in the plumage, the orange legs and feet, the graceful swan-like neck, with its dark stripe down the back, and the black skin, which, extending from the upper mandible, covers the fore part of the head like a mask. On the water their movements are so graceful and swan-like, that Cuvier arranged them with the Swans, and even now they are usually termed Swan Geesé, or Cygnoides. Their character as "profitable poultry," has also commended them to my notice; they are infinitely superior, as layers, to the common geese, usually laying more than thirty eggs before wanting to sit; commencing in the very cold weather, and laying two or three batches of eggs in the year. They are good grazers, but obtain a larger proportion of their food from streams than the common species.

Nevertheless, like all sublunary things, they have their

drawbacks, they are often accused of keeping up an incessant screaming clang, which is said often to be continued throughout the night; that their voice has a disagreeable metallic resonance, is perfectly true, but it is uttered so seldom, as to be quite unobjectionable. I have never heard it during the night, and seldom in the day, except when they are frightened, or come home hungry. In the first case, I regard it as advantageous, as it may be regarded as a cry for your assistance, or a warning that your property is in danger; and in the second, their mouths are soon closed by a handful of oats or barley.

They are very domesticated, keeping near home, and returning constantly in the afternoon, but if they are not shut up a little before dark, they take to the river, and, spite of all coaxing and remonstrance, persist in spending the night out-of-doors. This propensity is (in a place where they may meet with more admirers than their owner) somewhat of an objection; but it is the only fault that I can allege against them. As table birds, they are stated, by those who have eaten them, to be of *very* superior quality.

They breed freely with the common Goose, and what is very remarkable, the hybrid is fertile if mated with either a Chinese or common Goose, but there is some doubt whether they are fertile, *inter se*, that is, if mated with each other, so as to perpetuate true cross. The experiment has been tried with birds of the same brood, but the only way in which it can be satisfactorily performed, is by pairing two half-bred birds not related, and my object in writing this, is to request some keeper of Chinese Geese to add a common Goose to his stock, a plan I mean to adopt, and then, by the exchange of a half-bred bird, the experiment, which is of some considerable importance, in a scientific point of view, could be fairly tried.

The plan of feeding that I adopt is as follows:—In the morning early they are let out, when they immediately proceed to the river, and feed for an hour or two, they then come out, dress their feathers, and graze, afterwards they return to the river and wander about until two, p.m., when they return, and are rewarded for their attachment to home by a little corn. At dusk they are shut up, about two hand-fuls of oats or barley being allowed to each bird. This is placed in a large pan of water in the house where they are enclosed.—W. B. TEGETMEIER, *Wood Green, Tottenham.*

THE HOUSEHOLD.

(We shall be much obliged by any of our readers sending us approved receipts in cookery, hints for household management, or any other domestic utilities, for insertion in this department of our columns.)

RASPBERRY VINEGAR.—To every pint of vinegar put three pints of raspberries. Let them lie together two or three days; then mash them up and put them in a bag to strain. To every pint, when strained, put a pound of crushed sugar. Boil it twenty minutes, and skim it. Bottle it when cold.

TO MAKE YEAST.—Take one handful of hops, one apple, one potato sliced, boil in two quarts of water; while hot, strain off and stir in wheat flour until it is thick as paste—coarse flour is best. Grate one large apple, one large potato, place them in a gallon jar, pour in the batter, when sufficiently cool, add a little yeast; in twelve hours it will be fit for use.—*Ohio Cultivator.*

QUICK-MADE BLACKING FOR SHOES.—Beat up two eggs, add a teaspoonful of alcohol, a lump of sugar and ivory black to thicken; it should be laid on and polished like leather blacking, and left a day to harden before it is used.

HOPPERS IN HAM.—In answer to "B. B.," I beg to inform him, that if Hams are properly cured and kept, Hoppers will not get into them; but in case they should make their appearance, take a small quantity of unslacked lime, slack it, and when there has been sufficient water added to make it the thickness of cream, take a brush, and paint the hams all over; this will stop them. Hams so attacked should be cut up for broiling, and not be boiled. There is another very excellent plan which I tried, with some success, on some

hams that I was doubtful about. After they had been hanging drying for four months, I made some flour into a thick liquid like whitewash, with two-thirds of creosote, and one-third spirits of wine, and with a brush I laid on all over the ham a thick coating, and they hung well for nine months. I believe creosote without the spirits of wine will answer the purpose.—G. W.

MEDLAR JELLY.—Take Medlars when they are ripe, wash them, and put them into a preserving-pan, with as much water as will cover them, let them simmer slowly till they become quite a pulp, then strain through a jelly-bag, and to every pint of juice add three-quarters-of-a-pound of loaf-sugar, boil one hour, and then put into pots for use.—W. H. WARNER.

GLOUCESTER JELLY.—Take of rice, pearl barley, sago, eringo-root, and hartshorn shavings, of each an ounce, and boil in one quart of water for two hours, strain it, and give a tablespoonful or two in milk, broth, or any liquid. Good in cases of sickness.—W. H. WARNER.

CORNISH HEAVY CAKE.—Take half-a-pound of flour, half-a-pound of currants, one ounce of citron cut very small; whip them up with as much cream as will make them as stiff as tart paste, roll it out an inch thick, and bake for twenty minutes in a hot oven.—W. H. WARNER.

CITRON PUDDING.—Put a thin paste in your dish, then cut two ounces of citron very thin and lay at the bottom, three ounces of butter, and three ounces of white sugar worked up together, the whole of three eggs beaten well, and poured over it, with a little white sugar thrown over the top, and baked in a quick oven.—W. H. WARNER.

STEWED PEARS RED.—Take six large Pears (if small, more may be used with the same quantity of sugar), coddle them a little, and then put them for a short time in cold water. Pare and quarter (or halve, according to their size) them, and take out the cores. Put one pound of sugar and one pint of cold water into a stew-pan, with the rind of one lemon, and one pennyworth of cochineal, powdered and tied up in a piece of muslin. Boil and scum, then put in the Pears, and let them stew until they are very clear and red, which will be in about an-hour-and-a-half. When you take them off the fire, squeeze in the juice of one or two lemons, according to your taste. Keep them in a jar, in the syrup, for use. The lemon peel should be cut into narrow strips, and kept in the jar with the Pears, to which it will serve as garnish. The stew-pan must be kept covered while the Pears are in.—W. H. O.

LONDON MARKETS.—DECEMBER 24TH.

COVENT GARDEN.

The continued frost has considerably advanced the price of all the rough goods, and nearly stopped the supply of *Sea-kale*, *Asparagus*, and *Rhubarb*, which otherwise would now have been coming rather freely, owing to the increased demand at this season which has sprung up during the last few years for the northern markets, and has rendered the production of early-forced vegetables more remunerative. The last few nights must have told fearfully, also, on the *White Brocoli*, the late sorts having only just began to make their appearance. *Pears* consist of *Guernsey Chaudmontelle*, *Winter Nelis*, *Glou. Morceau*, and *Jean de Witte*; and among the more common varieties *Bishop's Thumbs* are plentiful, and a few *Swan's Egg* may be obtained. *Grapes* and *Pine Apples* are sufficient for the demand, and of good quality. *Newtown Pippins* are plentiful, and *Golden Knobs* have made their appearance. *Oranges* are plentiful, but scarcely fit for use, except those called *Autumn Oranges*. *Filberts* are very plentiful. *Flowers* consist of *Roses*, *Azuleas*, *Violets*, *Chrysanthemums*, *Chinese Primroses*, *Camellias*, *Erica gracilis*, *Mignonette*, *Cinerarias*, *Epiphyllums*, and *Scarlet Geraniums*. Preparations for Christmas are now in progress, and the supply of evergreens, such as *Holly*, *Spruce Firs*, for Christmas trees, and *Mistletoe*, is plentiful. *Cut Flowers* scarce.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s.
" dessert	6s. ,, 10s.
Pears	8s. ,, 12s.
Peaches, per doz....	5s. ,, 8s.
Neectarines, per doz....	—
Plums, per sieve	4s. ,, 8s.
Pine-apples, per lb...	4s. ,, 6s.
Grapes, per lb.....	1s. ,, 6s.
Foreign Melons, each	2s. ,, 4s.
Figs	—
Gooseberries, per qt.	—
Currants	—

Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 22s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts per bushel	12s. ,, 20s.

COVENT GARDEN—Continued.

VEGETABLES.

Calibages, per doz.	1s. to 1s. 6d.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	4s. ,, 6s.
Brocoli per bdle	1s. ,, 2s.
Savoys	9d. ,, 1s. 6d.
Greens, per dozen bunches	3s. ,, 6s.
Spinach, per sieve....	— ,, 4s.
Beans	—
French Beans, per half sieve	—
Scarlet Runners	—
Peas, per bushel	—
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Turnips, per bunch ..	3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.

Lettuce, Cos, per score	6d. ,, 1s. 6d.
" Cabbage....	6d. ,, 8d.
Endive, per score ..	1s. ,, 1s. 6d.
Celery, per bunch....	8d. ,, 1s.
Radishes, Turnip, per dozen bunches ..	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet	2d. ,, 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	8s. ,, 10s.
Sea-kale, per punnet	3s. ,, 5s.
Rhubarb, per bundle	1s. ,, 1s. 6d.
Cucumbers, each	1s. ,, 3s.
Vegetable Marrow, per dozen	—
Tomatoes, per punnet	1s. ,, 2s. 6d.
Mushrooms, per pot	1s. 6d. ,, 2s. 6d.

HERBS.

Basil, per bunch	4d. to 6d.
Marjoram, per bunch	6d. ,, 9d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch ..	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch ..	2d. ,, 3d.
Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, DEC. 21.—The arrivals continue moderate, but the trade rules very slow. Wheat is not lower than on Monday. Barley offered at 1s. decline without finding buyers. Oats continue in very languid demand, and sellers would take 6d. reduction. Beans and Peas meet a flat trade at rather easier prices. Flour was in slow sale at former rates.

WHEAT.

Kent and Essex, red, per qr.....	79s. to 81s.
Ditto, white	87s. ,, 88s.
Norfolk and Suffolk.	74s. ,, 78s.
Dantzic	88s. ,, 94s.
Rostock	78s. ,, 88s.
Odessa	70s. ,, 72s.
American	88s. ,, 92s.

BARLEY.

Malting	42s. to 44s.
Grinding and Distilling	38s. ,, 40s.
Chevalier	42s. ,, 44s.

OATS.

Scotch, feed	34s. to 36s.
English	26s. ,, 27s.
Irish	30s. ,, 32s.
Dutch Broo	29s. ,, 30s.
Danish	30s. ,, 32s.
Russian	26s. ,, 29s.

BEANS.

Harrow	43s. to 52s.
Pigeon	50s. ,, 54s.
Tiek	44s. ,, 46s.

PEAS.

Boiling, per qr.....	53s. to 56s.
Common	43s. ,, 45s.
Grey	43s. ,, 50s.
Maple	43s. ,, 50s.

SEEDS.

Turnip, White, per bushel	—
Swede	—
Rape	84s. ,, 86s.
Linseed, sowing, qr.	80s. ,, 84s.
" crushing ..	70s. ,, 72s.
Clover, English, redcwt	60s. ,, 68s.
" Foreign do.	52s. ,, 57s.
" White	68s. ,, 73s.
Trefoil	28s. ,, 32s.
Rye, per qr.....	52s. ,, 54s.
Tares	46s. ,, 52s.
" Winter, bushel	8s. ,, 9s.
Canary, per qr.....	64s. ,, 72s.
Hemp	54s. ,, 57s.

Linseed Cake, per ton.....	£11 to £12 10s.
Rape Cake ..	£6 10s. ,, £6 15s.
Indian Corn	47s. ,, 50s.

HOPS.

BOROUGH MARKET, MONDAY, DEC. 17.—The demand for all descriptions of good Hops continues tolerable for this period of the year, and in some instances choice samples bring rather more money. The best sorts of brown Hops are rather more in demand, and the currency is firm at about the annexed quotations. Mid. and East Kents, 65s. 95s. to 120s.; Weald of Kents, 60s. 80s. to 95s.; Sussex Pockets, 56s. 80s. to 90s.

FRIDAY, DEC. 21.—A moderate amount of business is doing in Hops of the best qualities, and, in some instances, choice samples realise an advance of 4s. to 6s. per cwt., but brown and inferior descriptions are heavy of sale at about recent quotations.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.
Ditto, 2nd cut	90s. ,, 130s.
Meadow Hay	90s. ,, 130s.
Rowan	80s. ,, 90s.
Straw, flail	30s. ,, 36s.
Ditto, machine	28s. ,, 30s.

POTATO.

SOUTHWARK WATERSIDE.—DEC. 16.—Trade steady at the following quotations. The arrivals have been limited. Kent and Essex Regents, 85s. to 90s.; ditto Shaws, 80s. to 85s.; York Regents, 100s. to 110s.; Lincolnshire Regents, 85s. to 100s.; Wisbeach and Cambridge Regents, 80s. to 95s.; Bedford Regents, 100s. to 0s.; ditto Shaws, 0s. to 0s.; Norfolk Regents, 80s. to 90s.; ditto Whites, 0s.; Scotch Regents

(East Lothian), 90s. to 95s.; ditto (Red Mould), 100s. to 0s.; ditto (Perth and Fife), 85s. to 95s.; ditto (North Country), 85s. to 90s.; Dahlias and Rautlers, 80s.; Blues, 90s.; Orkney Reds (East Lothian), 90s.; ditto ditto (Red Mould), 95s. to 100s.; Scotch Cups (Perth and Fife), 85s. to 0s.; ditto (North Country), 80s. to 85s.; Irish Kemps and Clusters, 80s. to 85s.; ditto White Rocks, 80s. to 85s.; ditto common Whites, 75s. to 80s. per ton.

MEAT.

Beef, inferior, per 8lbs. 3s. 4d. to 3s. 8d.	Mutton, middling 3s. 10d. to 4s. 4d.
Do. middling 3s. 10d. to 4s.	Do. prime 4s. 6d. to 4s. 10d.
Do. prime 4s. 2d. to 4s. 4d.	Veal 3s. 10d. to 4s. 10d.
Mutton, inferior 3s. 4d. to 3s. 8d.	Pork, large 4s. 8d. to 5s.
	Ditto, small 4s. 4d. to 5s. 4d.

POULTRY.

Rather more than the usual detail is requisite in giving the account of the Christmas markets. Some prices may seem very high, but it must be borne in mind this is the time when things of unusual size make large prices. Senders must also recollect that there is an excitement and recklessness about this market which belongs to itself, and the prices will not be maintained. The supply was moderate throughout, and first class goods were scarce.

Cock Turkeys .. 12s. to 26s. each.	Partridges 2s. 3d. to 2s. 6d. each.
Hen Ditto 6s. 6d. to 11s. "	Hares 3s. to 3s. 6d. "
Capons 7s. 6d. to 9s. "	Wild Duck 2s. to 2s. 3d. "
Large Fowls 5s. to 6s. "	Teal 9d. to 10d. "
Smaller do. 3s. 6d. to 4s. "	Woodcock 3s. 6d. to 3s. 9d. "
Chickens .. 2s. 3d. to 2s. 9d. "	Snipe 1s. 3d. to 1s. 6d. "
Geese 7s. 6s. to 9s. "	Rabbits .. 1s. 4d. to 1s. 5d. "
Pheasants 3s. 6d. to 4s. 3d. "	Wild do. 9d. to 11d. "

PROVISIONS.

BUTTER.—Cwt.	CHEESE.—Cwt.
Dorset, fine 104s. to 108s.	Cheshire, fine 70s. to 84s.
Do. middling 90s. " 96s.	Gloucestershire, dhle. 66s. " 76s.
Fresh, per doz. lbs. 12s. " 13s.	Ditto, single 74s. " 90s.
Friesland 103s. " 112s.	Somerset 70s. " 76s.
Kiel 94s. " 98s.	Wiltshire, loaf 68s. " 78s.
Carlow 102s. " 106s.	Ditto, double 72s. " 78s.
Waterford 98s. " 102s.	Ditto, thin 54s. " 64s.
Cork 98s. " 102s.	Ditto, pines 72s. " —
Limerick 100s. " 102s.	Berkeley, thin 62s. " 66s.
Sligo 94s. " 102s.	
BACON.—Cwt.	HAMS.—Cwt.
Wiltshire, dried .. 80s. to 84s.	York, new 80s. to 90s.
Waterford 59s. " 62s.	Westmoreland 72s. " 76s.
	Irish 82s. " 90s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11½d, the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs 1s. 2s. to 1s. 3d.	Kent fleeces .. 1s. 1d. " 1s. 2d.
Ditto Tegs and Ewes 1s. 1d. to 1s. 2d.	Leicester fleeces 1s. " 1s. 1½d.
Half-hred Hogs gets 1s. 3d. to 1s. 3½d.	Long, heavy do. 11d. to 1s.
Do. Wethers 1s. to 1s. 2d.	Combing skins .. 10½d. to 1s. 1d.
	Flannel wool .. 1s. 1d. to 1s. 2½d.
	Blanket wool 6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

SPANISH FOWLS AT BIRMINGHAM SHOW.—"I find that there is an impression amongst several amateurs, that the prize Black Spanish fowls exhibited by me at Birmingham were obtained from Capt. Hornby. In justice to other fortunate breeders from whom I have obtained fowls, I wish to contradict this, as only one of the hens came from Capt. Hornby, nor have I any others of the celebrated Knowsley breed. The other two hens and the cock are quite a distinct breed.—JOHN S. HENRY."

TAIL OF SEBRIGHT BANTAM (*A Subscriber*).—It is hard to define what a Gold-spangled Bantam is. If a Sebright is meant, it should be laced; and, therefore, if spangled, would, for that reason, be disqualified; but a black tail would be fatal to success if all the other parts of the bird were perfect. As there is no class for Spangled Bantams, it belongs to "any other variety;" and as such may be of any colour. A black tail would not in any way interfere with such a bird, as it becomes a fancy breed.

WEAKNESS IN COCK'S LEGS (*An Old Subscriber*).—The Cockin cockerels walking on their heels arises from muscular debility when compared with their weight. Three grains of citrate of iron given daily, in meal, will rapidly restore them to condition.—W. B. T.

TRENCHING (*An Old Subscriber*).—Your man is quite right. When the clay has been broken down by frost, let it be forked into the sandy loam.

BOOKS (*E. B., Guildford*).—Johnston's Physical Geography, Henfrey's Rudiments of Botany, and Samouelle's Introduction to Entomology, will meet your wishes.

PLOT OF LAND (*Hackney Road*).—Cultivate it as directed in the series of papers we have published under the title of "Gardening for the Many."

NAMES OF PEARS (*A.*).—No. 11. Chaumontel. No. 12. Passe Colmar.

APPLES (*A Subscriber to The Cottage Gardener*).—*Emperor Alexander* is very large and handsome, but best for kitchen use. Tree a hardy, vigorous grower. In use from September to December. There are two *King Apples*, *Warner's* and *Newark*. Which is yours? The latter is of American origin, a dessert Apple of moderate quality; good from November until February. *Warner's King* is a first-rate kitchen Apple, in use from November to March. Tree hardy and vigorous. There are also two *Lord Nelsons*, *Backhouse's* and *Kirke's*. Yours, probably, is the latter; and if so, is neither good for dessert or kitchen use. Its season is from November to February. It is a very inferior variety.

GOURDS (*Rector, Lincoln*).—You may give them safely to cattle; but there is very little nourishment in them. There is less of either muscle or fat forming constituents in Pumpkins than in almost any other vegetable. The name of the French Gourd was given the other day in "Notes from Paris." If you send us your address we may in some degree help you.

TAUNTON AND SOMERSET POULTRY EXHIBITION—"Only two of the pieces of plate (special prizes) went to gentlemen in the locality; viz., Messrs. Marshall and Hodson. The "plate" for *Malays* went to Mr. Leighton, of *Cheltenham*; that for *Polands* to Mr. Breavington, of *Hounslow*; *Dorkings* to Mr. Popham, of *Reading*; *Bantams* to Mr. Leno, of *Harpenden, Herts*; *Game* to Mr. Rodbard, of *Lungford, near Bristol*.—ONE OF THE COMMITTEE."

*** SIZE** (*Semper vivo*).—It is used by plasterers, and can be obtained either from them, or from a dealer in oils and colours.

McINTOSH'S BOILER (*A Reader*).—Not having seen or used one of McIntosh's portable boilers, we are unable to say anything about their merits. Mr. McIntosh himself would best answer such a question. We would here observe, however, that the idea is good; and, in case of a "break down," or any emergency, we think, that if it could be so arranged, persons having much to do with in-doors gardening would do well in planning their matters to prepare for such a thing. The best small and inexpensive boiler is such as the smallest of the series of *Burbridge and Healy, Fleet Street*, with *Sylvester doors* to it; but these are not inexpensive times to live in. We have no experience in your novel mixture for fruit-trees; you had better beware. The best *Raspberry* at present, for general purposes, is the *Fastoff*.

NAMES OF APPLES (*Town Close, Norwich*).—We only recognize the following:—1. *Gloria Mundi*. 3. *Kentish Fill-Basket*. 4. *Broadend*. 6. *Ganges*. 7. *Keswick Codlin*. 8. *London Pippin*. 9. *Marmalade Pippin*. 10. *Normanton Wonder*. 11. *Belle Grideline*. 20. *Summer Broadend*. 29. *Belle et Bonne*. 33. *Margil*. The greater part of the others appear to be nondescripts.

ROCKWORK PLANTS (*Wilderness*).—We cannot think you are in earnest about the 700 rock plants. If you are in earnest, how did you get such an extraordinary idea into your head? Not from reading *THE COTTAGE GARDENER*, certainly. There is not one-quarter of that number of plants fit for your rockwork to be had in Europe. Without going to Paris for them, however, you may buy twice 700 hardy plants in London, or Edinburgh, or Dublin, by merely sending an order on your banker to any one of the leading nurserymen there. We have seen very good lists of dwarf plants offered at from 42s. to 50s. a hundred; and a very long list of rock plants is given in one of our volumes.

NAME OF PLANT (*B. Vivian*).—Your wild shrub is *Euonymus europæus*, or Common Spindle Tree.

MR. LODGE'S DORKINGS.—"I was informed, during my late visit to Birmingham, that the pullets in my pen were, by certain parties, suspected and accused of being hens. I am not the least surprised or offended at this, as the more I exhibit, the more I feel assured there are very few who know a good Dorking fowl when they see it. I am pleased and proud to be in a position to say that I bred these said pullets; that they weighed, 8lbs. 12oz., 8lbs. 10z., and 7lbs. 9oz., each, when they left home; that I marked them myself, with a private mark, a day or two after they were hatched; that I have the exact day of their hatching entered in writing; and that I have not lost sight of them for more than about a fortnight together (and that only once during the shooting season of September), since the time they were hatched. There can, therefore, be no mistake, and this statement will be quite satisfactory to my friends (if they ever doubted)! But there are others who do not know me, and to them I now address myself:—I cannot, do not, and will not complain, however; for after the many gross and palpable impositions that have been practised, public confidence in exhibitions has been shaken (and I think most justly), and I shall be not a little pleased if I can do anything to re-establish it; and to this end, I will deem it a great favour if anybody, having the slightest doubt as to the correctness of my entry at Birmingham, will send me a line to that effect, or pay me a visit at the High Beeches, and if I fail to prove that the pullets were correctly entered, and were all hatched since the 1st of April, 1855, I will forfeit £50. Can I do more? I think it right and just to add, that Mr. Bailey having heard that persons doubted the ages of my birds, openly and decidedly declared, that "if he knew a Dorking, they were chickens of this year." I beg, now, publicly to thank Mr. Bailey for his manly candour and timely assistance; his opinion, under the circumstances, and at such a time, was most valuable.—ROBERT LODGE, *The Beeches*."

NAMES OF FERNS (*J. Ridgwell*).—1. *Doodia caudata*. 2. *Cassebeera hastata*. 3. *Asplenium flaccidum*. 4. *Scelopendrium vulgare, var. multifidum*. 5. *Lastrea decompositum*. 6. *Asplenium species*, uncertain which one.

WEEKLY CALENDAR.

D M	D W	JANUARY 1—8, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock af. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
1	TU	CIRCUMCISION.	29.951—29.919	53—46	W.	02	8 a 8	iv	0 m 47	23	3 36	1
2	W	Sarrotrium mulicum.	30.069—30.028	51—44	N.W.	01	9	0	2 0	24	4 4	2
3	TH	Helops striatus.	30.170—30.139	52—39	N.W.	00	8	1	3 16	25	4 32	3
4	F	Salpingus Roboris.	30.218—30.164	47—38	S.W.	00	8	2	4 35	26	5 0	4
5	S	[EPIPHANY. Twelfth Day.	30.132—30.062	51—40	S.W.	00	8	3	5 55	27	5 28	5
6	SUN	2 SUNDAY AFTER CHRISTMAS.	30.361—30.240	50—44	S.W.	00	8	4	7 15	28	5 55	6
7	M	Rhynchoenus maculatus.	30.530—30.428	49—43	S.W.	00	7	5	sets.	29	6 21	7

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 41.3°, and 30.3°, respectively. The greatest heat, 54°, occurred on the 1st, in 1845; and the lowest cold, 4°, on the 2nd, in 1854. During the period 120 days were fine, and on 76 rain fell.

THERE are, at least, two old things that we love heartily—old friends and old customs; and we will show such love of both now by wishing A HAPPY NEW YEAR to you. It matters not who the “you” may be that reads our greeting; for all who so read have our good wishes. With us the war-pen is buried on the first of January.

We feel the more bound to offer such a New-Year’s greeting, not only because old friends have clung to us and new friends have thronged to us, but because, in “the good old times,” New Year’s Gifts were derived chiefly from subjects which find special notice in our pages. Let us enumerate a few of them.

Foremost comes the fatted fowl; and even as far back as 1598, Bishop Hall, in his “Satires,” tells that the tenant farmer

“Must haunt his greedy landlord’s hall
With often presents at each festival;
With *crammed capons* every New Year’s morne,
Or with green cheeses when his sheepe are shorne.”

Fruit of various kinds were New Year’s Gifts at the same period, and continued to a much later era. Thus, in a work published in the reign of Queen Anne, we read:—“On the first day of this month (January) will be given more gifts than will be kindly received or gratefully rewarded. Children, to their inexpressible joy, will be drest in their best bibs and aprons, and may be seen handed along streets, some bearing *Kentish Pippins*, others, *Oranges stuck with Cloves*, in order to crave a blessing of their godfathers and godmothers.”

We could give many similar quotations, showing how *Evergreens* in some places, *Geese* in others, gilt *Nutmegs*, and many similar tokens of good-will, were on this day presented to friends.

As we have already said, we love old customs, so on this day we follow it, and present to our friends whole pages full of well-tended Poultry, gilded Fruits, and *Evergreens*; and we bid our friends to treat our pages as Herrick bade his friends,—

“Read them—and when your faces shine
With buxom meat and cap’ring wine,
Remember us in cups full-crown’d,
And let THE C. G.’s health go round.”

So numerous have been the letters which we have received requesting that we will give our opinion relative to the probable success of cultivating the Chinese Yam, *Dioscorea Batatas*, that we think it best to reply, generally and prominently, that we do not think the general

results of the past year so discouraging as we anticipated. It was unreasonable in those who expected, from the liliputian sets which they planted, to obtain roots or tubers of the very large size the plant when of full growth is capable of producing. It was unreasonable, because they know that Potatoes planted of the same size as the *Dioscorea* sets would only produce small tubers the first year; but these tubers being planted, produce a full-sized crop the year following. So it may be with *Dioscorea*. We say *may*, because no one has had sufficient experience of its adaptability to our climate to speak with confidence as to its probable success. We recommend those who grew it during the past year to grow it again this year. We also advise them to plant much larger sets; some of the roots we would plant whole. We would plant early in April, in the open ground, and on ridges, giving the roots full two feet deep of well-loosened soil to work in. In the absence of any new information upon the subject, we extract the following from the *Revue Horticole*, and written by M. Carriere:—

“The increase of the *Dioscorea Batatas* can be effected in four different ways. 1. By suckers. 2. By planting the axillary bulbs of the stems. 3. By the underground bulbs, which come from the suckers of buds. 4. By the plantation of cuttings obtained by dividing the rhizomes, or underground stems. A 5th mode of propagation, by seed, is not within our power, for the plant is diœcious, and we do not yet possess a plant bearing male flowers.

“The suckers do not offer any difficulty; for it is sufficient to cut them off, to plant them in small pots in the ground, and place them under a covering. They are not slow in taking root. It is not necessary that the suckers should be very long. A small piece, if supplied with an eye, suffices to produce a plant. In this case the eye ought to be covered over by the earth; for from one side of this shoot forth the roots which are intended to penetrate into the soil, and from the other side the bud, which will become the trunk.

“When the success of the suckers is established, shift them into pots of a larger size, and finally into a seed-plot, very near each other, or in some boxes, under frames, where the glass ought to be as near as possible to the young plants. If instead of putting the suckers singly in small pots, earthen pans or large pots have been employed, in which several have been planted, they must be separated, as already directed.

"The planting of axillary bulbs does not require such particular attention. It is sufficient to put them in the earth where they are to remain. The chief difficulty consists in obtaining these bulbs. These bulbs are nothing but abortive buds growing from the axils of the leaves, and in the place of the buds which usually are formed there. In ordinary circumstances, under the climate of Paris, at least, it is but rarely that they develop themselves; and those which are formed only attain to a small size. But if one cuts off a branch of the plant and strikes it in the earth under a bell-glass, the roots are not slow in showing themselves, and give birth to shoots which wither and grow sickly when exposed to the free air. At the time when the stems grow yellow, then the formation of roots is completed; for, although the plant may be long-lived, nevertheless, the stems are annual. Collect these roots and put them in pots, and cover them over with earth or sand, to prevent them from withering up by contact with the air.

"But independent of these aerial little bulbs, there is developed, at the bottom of the stem, a little lump, having only one eye. It is to this that M. Carriere gives the name of a terrestrial bulb. Propagation by these two kinds of little bulbs is alike free from any difficulty but putting them into the earth.

"With respect to the increase by cuttings, it consists in cutting the large tubers in slices of at least two-thirds of an inch in thickness, and each slice should be planted either in the open earth or in pots. From these pieces shoots rise above the ground, and the underground stems (rhizomes) force themselves into the earth, and increase in size, until they become fit for food. The sets ought not to be cut too small, for they remain some time in the earth without vegetating; and they would be liable to decay.

"Contrary to what has been supposed and recommended, it is not necessary to leave the sets for some time without planting them, for they very readily rot, especially when they are small. It is best to plant them immediately after having prepared them. The two first modes of propagation which are here spoken of ought only to be considered as preparatory until they have formed bulbs of a small size, fit for seed the following year.

"The best time to make these plantings varies according to the nature of the ground and climate in which we grow them. In a commercial point of view, it is not desirable to plant until the buds develop themselves. When one wishes to raise them in pots, in a greenhouse or under frames, to put them afterwards in the open earth, make the plantation in March; for under the climate of Paris it may not be prudent to place them in the open ground before the last days of May, when they have begun to develop themselves in a greenhouse. But if the tubercles are not cut until planting-time, planting can take place without inconvenience in April.—(*Revue Horticole*).

FRUIT-TREES, THEIR BLIGHTS AND OTHER AILMENTS.

(Continued from page 123.)

THE PEAR.—It will be remembered, that in a former paper on the Apple, &c., I proposed, when time permitted, looking over most of our fruits, and pointing to some of the chief ailments pertaining to them, as they have appeared to me during some forty years experience. I may here observe, that not pretending to a knowledge of the science of entomology, it is not in my power to take a wide range in this subject, such as he could do who unites both science and practice; indeed, could I do so, the affair would occupy too much space for our present purpose.

One of the most common evils to which the Pear in a trained state is subject is the *Scaly insect*, termed *Aspidiotus ostraformis*, or, more commonly, *Oyster scale*. Persons ill-versed in gardening matters may pass by their favourite Pear-tree, day-by-day, for years, lamenting its lean and sinking condition, without the least conception of the cause, unless their attention be specially directed to it; so insidious are this insect's operations. Those who are strangers to it, and who have suspicious-looking trees, may easily detect it, if present, on a close examination of the bark of the tree. It appears in myriads of little specks of an oval shape, so small that it would probably require thirty or forty to cover the face of a sixpenny-piece. They are as near as may be of the same colour as the bark, a colour the best they could have devised in order the better to conceal their intentions. Such a device would have been high instinct; and talking of the instinct of animals reminds me, how often I have seen a hare, when advanced too closely unpereceived, instantly crouch herself up into the most awkward form, generally like a piece of old, rotten stump blown out of a tree, doubtless, thinking it a better chance than to attempt running away.

But back to my tale about insect enemies. It may well be asked here, by some beginner, Pray, what harm can these little things do? That they do immense harm is best proved by the fact, that when a tree becomes thoroughly infested with them its downfall is certain. It may linger on in a hide-bound state for a few years, but "good-by" to all fine and profitable produce. That they abstract those juices from the trees, on which not only the production of superior fruit depends, but even the health of the parent itself, there can be no doubt. They would appear to be as powerful enemies through the medium of the bark, as the Red Spider is through the medium of the foliage.

However, although insidious and untiring enemies, there is one comfort concerning them,—they are easily come at, and easily destroyed. I would, therefore, rather have twenty trees infested with this Scale than one with the American Blight. Soft soap is the best remedy that I have ever known. I am almost prepared to say that it alone will destroy them. However, I can scarcely affirm that I have thus done. The mixture I prefer is thus compounded. I beat up soft-soap in warm water at the rate of eight ounces to a gallon; to every gallon of this I add another gallon of such a thing as stable-liquid, and, finally, make the whole into a painty consistence, by adding clay finely divided. This we brush thickly over the stem or branches infested, leaving not a crevice unfilled. Indeed, my plan, to save time, has been to squirt it all over the trees by a syringe; but in this case the clay water must be strained very clear. I have used sulphur combined; and, where Red Spider is known to exist, it is expedient; but this alone would not destroy this pest.

One word of caution here: let it be remembered that this mixture is intended to be used when the tree

is in a dormant state; it would prove too powerful when the tree is in leaf.

The *Red Spider* sometimes attacks the Pear; but this may be dealt with as in the case of the Apple, and we need not repeat it here. Whilst on this part of our subject, I may observe that the *Scalo* also attacks the Apple, and may, in its turn, receive the treatment here laid down.

About the end of June, I have, for three years, received a singular visitation on a Pear-tree, here and there, in the shape of a kind of *Honey Dew*, for which I never could discover any adequate cause. Certainly, I have seen myriads of white Thrips, of a sort of triangular character, light as gossamer, and bouncing about in a most thripish sort of way. Whether these produce this exudation, I am unable to say, but think it very probable. It is very injurious to the foliage. The wasps congregate about these trees as their chief delight, with hosts of big flies; and knowing labourers, who receive a penny for wasps, make a point of keeping an eye on these infested Pears. I found, that a universal wash of soap-water and stable liquid, made as thick with clay as could be done, put on in 1854, cleared the trees from this nuisance.

Next, I have had before now serious visitations from a fungus which produces pimply *warts* or *puckers on the leaves*. I forget the name of this—perhaps the greatest enemy of the Pear—and know of no remedy, but the moment such foliage appears to pluck it away; and that course to be repeated as long as it appears.

Another most serious enemy, one which may happen about July or August, is a *caterpillar*, hatched in the interior of the leaf, after the manner in which Celery and the Holly-tree are apt to be infested. I remember, several years since, seeing the majority of the trees in a celebrated garden, not very far from Liverpool, and then noted for fine Pears, nearly stripped of their foliage in the prime of summer. I never had a visitation from this evil; and I have never heard of any thing effective to prevent its appearance. Of course, there would be no proceeding against the caterpillar; it should be dealt with in a previous stage.

Within the last three years another serious visitation has occurred just whilst the fruit is ripening; this consists in the *foliage turning black* of a sudden, as though scalded with boiling water. This takes place in a very few hours. I have no idea what the cause really is; but am driven to suppose it is one of those minute fungi—those scavengers of the vegetable world, which are so dangerous, because so insidious and obscure. This strange visitation, although it cannot well injure the blossoms of the ensuing year, seriously compromises the excellence of the fruit, which at that period is completing its flavour. I have tried no remedial measures, for it has ever given too short a notice. I am of opinion, however, that it must, for the present, be handled on the preventive system. For my own part, as long as I can obtain labour to accomplish it, I shall make a point of sousing every wall and every trained tree, each succeeding spring, with a universal wash; believing that one good blow thus dealt out will be better than all the summer fiddle-faddle possible.

I am not aware of many more evils of any grave consideration which befall the Pear; doubtless, there are others, but I, of course, am not acquainted with all.

I intend continuing my remarks on other fruits; and, as I proceed, memory may, perhaps, call loudly for a postscript, and, if needed, it shall be produced.

R. ERRINGTON.

WINTER STORING AND SUMMER RESTING GERANIUMS.

WELL, to-morrow is Christmas-day, and this is the finest day we have had this winter; but we went through

a very severe and damaging frost for the last ten days, and more so round London, and in all places not covered with a little snow. We experienced 18° of frost one day, and 15°, 12°, and 10° on other days, with a cutting east wind; but there was but little sun, so that small injury has yet been felt in the kitchen-garden. When the glass ranged from 10° to 15° of frost, the leaves and stems of my out-of-doors Pompones dried up as if scorched, but some of the kinds which were on a north aspect hold up the flowers still, just as if they, the flowers, were everlastings. *Fiancée*, *Penella*, *Toison d'or*, and *Colibri*, stood it the best; and I am going to cut a handful of these blooms and some large flower-buds on the *Gloire de Rosamere* Rose to-morrow, for a Christmas nosegay. Last Saturday I cut about two dozen of trusses of my last *Scarlet Geranium* for the season. There were thirty-four trusses on the same plant, and from six to ten open flowers in each truss; but the cutting wind for the last two or three days spoiled so many of the flowers that I could not use the whole of the trusses for the nosegays; still, you see the possibility, without a hand-glass, frame, pit, or greenhouse, of being able to have cut-flowers for the Christmas-dinner from Pompones and an Autumnal Rose, after a bad November for flowers, and an unusually severe beginning to the winter.

I put the *Scarlet Geranium* out of the question, for, without a *cool* glass-case of some kind or other, no one would be able to have flowers of the *Scarlet Geraniums* so late as this. In a living room the flowers must have gone much sooner. I had been satisfied, in my own mind, for many years, that we never hit upon a proper system, or say the best system, for having *Scarlet Geraniums* down to Christmas, and much later, or till *Geraniums* "came again;" like having old Grapes till the new ones came in; but all that time I was all but confident that such might be done, and done handsomely too.

I used, every autumn, to pot so many old *Geraniums*, on purpose to come in next autumn for late bloom, with the intention of trying such and such experiments on them, to find out the simplest plan of managing the thing.

But, alas, for gardening! No man can carry out a set of experiments, or resolves, in a fashionable establishment, however useful they might be to himself and others. Fashion is more despotic than a tyrant, and every man, woman, and thing, within its influence must give way to it, and go to the wall without the power to resist it.

My yearly pottings for specimen *Geraniums* to flower during the following winter could not be hid in a corner; and every visible thing, plants among the rest, had to be displayed out in full array to satisfy the demands of fashion, without the slightest regard to this or that kind of future use and management. "The so-and-so are coming next week, or the week after, and you must put the best foot foremost, look apple-pie order, and trust to, goodness knows what, for the fulfilment of your great projects for the future, which may be all good and well when I am dead and gone; but which would deprive us now of the best arm in our service." Oh, these *we's* and *ourses*, with smiles and suavity, no mere flesh and blood could resist them! Decrees and ukases are not half so imperious over the will of man. All my best pot-plants for experimenting on would have to "go out this time," and I must console myself with the hope of better luck next time; were it not for thus hoping against hope, I know some of our very best gardeners would knock their heads against the Peach-wall. But when a man gets over fifty, the ruling passion is not quite so strong; he will undertake things more slowly and more cautiously, and is apt to be satisfied with less than an average of success, or returns for what he is engaged on; that may

be, or not be, the case in this instance; but I was very earnest on these experiments which gave me the Christmas nosegays. Those upon the Pompones you know already, the result is before you; to-day you will hear about the Scarlet Geraniums, or, rather, the one from which I sent those beautiful flowers on the Saturday before Christmas-day; and, first of all, I am perfectly satisfied that the secret turns on how you winter the plants, and how you rest them the following summer; and being sure of that, I fixed this mixed communication on these two hinges, in order to settle the subject better in the memory. We have never yet heard of a regular systematic plan for resting Scarlet Geraniums during the summer, or any part of it, with a view to future results. Such resting is not new in gardening, however. The difference between winter rest and summer rest is as well-known to many practical gardeners, as the difference which is essential to be maintained between the day-temperature and the night-heat in a plant-house. The only difference is, that few gardeners have yet turned their attention to the usefulness of resting the Scarlet Geraniums in the summer. Hence, our want of knowledge about which kind or kinds are best suited for that purpose, or whether one kind is as good as another for that particular purpose. This we have to learn from actual trials.

For the last year or two, I think I have urged enough to show the stress and value I put on a regular system for having old plants of the different breeds of the Horse-shoe or Scarlet Geraniums, for the different purposes for which they are now used, or might be used; and all the time I had an eye to this particular purpose of getting cut-flowers during the winter, and plants in bloom for the conservatory; but until I could prove my long-hoped-for experiment, either way, I did not mention it among the subjects for which old Scarlet Geraniums should be kept in store; but as it is not always the safest plan to take the proof of the pudding from the assertions of the man-cook himself, my Christmas nosegays were sent into a fashionable drawing-room, to stand the proof of the experiment from more disinterested parties, so that the experiment is complete enough as far as it goes.

My own firm opinion is, and has been for some years, that a greenhouse treatment, in winter, is not a sufficient rest for an old plant of Scarlet Geranium, in order to get more than the common use out of it—a good show of bloom during the summer months;—and that when more is aimed at, a more perfect repose is essential for it during a long period—say from the end of November to some time in March, or later still, if the plant could be kept from pushing naturally. Harry Moore's system confirmed me more than ever in that belief; therefore, as far back as last November twelvemonths, I cut off all the leaves of certain old Geraniums without touching the young wood, and put them down into a dry cellar, in their pots, there they stood, with only two good waterings, till the middle of last March, when all the young wood was as plump and sound as it was last autumn.

If a Geranium, at rest in a cellar or any room which is quite dark, gets any damp to hurt the young wood, or as much drying as will shrivel the young shoots, I consider it not rested properly. It may be preserved with but little damage; still, it is not rested, as it ought to be for this experiment, if a single bud on it is lost. Again, without perfect darkness I do not think it possible to rest these Geraniums properly; and if the heat ever rises above 40°, the rest is not so complete as it should be; or if it falls below 30° it may cause injury; but of that I am not so sure. However, I should not like to find more frost in the cellar, as the soil in the pots is never quite dry, except the first inch on the surface.

As soon as the plants begin to grow naturally in the spring, whether early or late, they should neither be checked nor encouraged; but they must have light every day from that time. Growing in the dark is a severe check to the system, no matter who says to the contrary; and to be watered and placed in the sun is an encouragement to legitimate growth, so to speak: therefore, neither water them at first, nor place them in the sun. The slower they get on in the spring, the better they will be for what we want—a full bloom next winter. After a while they must have water and sun, heat and light, and they will come into bloom. It was about the 20th of last May that my plants came generally into bloom, and for the next six weeks I allowed them to bloom uninterruptedly; but all appearance of seed and seed-pods was avoided. By the end of June they had thrown off the pride of their first bloom, and now they must go to rest for full two months. There is no difficulty or grand secret in this: the plants are on Harry Moore's system, and, of course, have been in the same pots for years. Under that system, old plants make very little growth all the time they are in bloom. Every joint brings its truss of bloom with it, and that has to be supported at the expense of growth; therefore, all that was necessary to rest them was to secure a slow root action, and to cut off every bloom-bud as fast as they appeared. The blooms were so cut till the end of August—just two months' rest. The plants were in the full sun, and much sheltered; but the pots plunged to the rim in the common soil, but not touching the soil, for that would stimulate the plants to unprofitable growth, which would be no rest at all. The pots were first put into larger pots, and thus the roots were cut off from the moisture of the earth. If the double pots were not plunged, the plants would need more water; and that would also be needless excitement instead of repose. How often they had water would be no guide to you. It frequently "went hard" with them, and twice I had to pick off lots of yellow leaves from a stint of the necessary supply of water; but the shoots or young leaves never flagged but once, and that not by design—it was a mere accident. These plants were in full bloom by the middle of September, and one of them produced for my Christmas nosegay. D. BEATON.

(To be continued.)

SHORT NOTES OF CULTURE.

APHELANDRA.

A CONSTANT SUBSCRIBER requests the culture of the *Aphelandra* tribe, so as to get them nice, branchy specimens. He says, "I have the *A. Leopoldii*, *Cristata*, *Aurantiaca*, *Squarrosa*, *Citrina*, and *Posteana*, which grow well in single stems, but I cannot get them to branch out."

Some of the latter mentioned I do not know. The old beautiful *Cristata* is as fine as any of them, and grows rather the strongest, though most of them will grow strong enough when treated to rich food. *Aurantiaca* will generally bloom when the shoots are shorter and nearer home. *Glabrata* and *fulgens*, the first having yellow and the second orange flowers, are also inclined to be stubby and dwarf, and the beautiful *Leopoldii*, with its white bars, like the stripes of a zebra, on the green foliage, does not seem quite so strong-growing as *Cristata*. I have not grown *Leopoldii*, but, judging from its appearance in other places, I should say that the leaves are impatient of sudden changes when growing, and of meeting the sun's rays when there is any condensed moisture upon them. When the plant is therefore growing fast in a hotbed, air should be given early, to disperse all and anything like steam

from the foliage before the sun strikes it, or the peculiar beauty of the foliage will soon become a deformity.

Were not similar inquiries made by those not quite so successful in growing them as our correspondent, I need hardly have gone into any detail respecting their peculiar treatment, as many can grow them freely enough, and yet not flower them at all to their satisfaction. It is one of their valuable properties, that small plants with only one stem may be made to bloom nicely in twelve or eighteen months from the cuttings; but as to getting a plant, however large, and with ever so many stems, to branch out into branchlets, and these respectively to be all studded with flowers as we might expect in the case of a *Fuchsia*, that is not for a moment to be expected, as the flowers are invariably produced on the points of shoots that require a considerable time to perfect their growth, and, therefore, all stopping and pinching to produce bushiness and side-shoots, unless at the very first, when the shoots are only two or three inches in length, will secure you shoots and growth, but not bloom, just as the lovers of bushiness deprive themselves, at times, of the flowers of their *Chrysanthemums* by nipping and stopping their points in August.

The only mode by which a bushy and flowering habit can be given to plants like these that bloom at the points of the shoots, is, from a plant of two or three years of age, and upwards, to secure a certain number of young shoots, after pruning back, of equal strength, as nearly as may be, and then, after being fairly started, the weaker ones may be trained upright, and the stronger ones at some angle between the vertical and the horizontal, and then the plant will assume something of the bush aspect.

Those who have little room may have nice, flowering plants, with from one to three shoots, in small pots ranging from four to seven and eight inches in size. None need attempt the culture without the benefit of regular stove-heat during the growing period; and, like the *Ixora*, and some other tribes, though they flourish tolerably in such a stove, set on shelves, or platforms, they dearly love to be plunged in a hotbed of fermenting matter when making their growth, but, as already stated, everything like steam should be avoided, and condensed moisture should be dissipated from the foliage before the sun's rays strike forcibly. When I used to grow this tribe, I found that, according to the treatment, the flowers could be made to flower at almost any time; but it was very difficult to make them do so in the spring months, as when kept growing in winter there was not enough of light to consolidate the growth sufficiently to perfect the flower-buds, and when grown late in autumn, and rooted, comparatively, in winter, either the rest was apt to be too long, and thus the bud was injured, or the sun of declining autumn was hardly sufficient to perfect the floral parts. Autumn, and the first months of winter are, therefore, the time in which they bloom most perfectly, though I have seen them fine in June and July. Keeping this peculiarity in view, though by no means confining the period of bloom, or the exact period for performing peculiar operations, I shall now advert to the

General Treatment.—Just as in the case of the Vine, well-ripened buds of this season are apt to be most flower-bearing the next. From such buds, on well-ripened wood, I have obtained flowers on young shoots, on the rapid continuous system of culture; but when that does not seem likely to take place, the quick growth must be succeeded by a condensing ripening process before the flower-buds appear. Success may be attained without all the aids I shall mention. When they can be given, the success will be more general and certain. Supposing, then, that the plants we possess (Dec. 24th) have now, or during the next month, either finished blooming, or looking as if they would not do so, and supposing that

we have made up our minds not to expect flowers from the latter, by keeping them comparatively low in temperature now, and with little water for a couple of months, and then to give a higher temperature and moisture to get them to show flower in spring, which I have sometimes done; but that our object is to obtain nice flowering plants in autumn and early winter, then, the first thing to do, is to remove all the old flowers, and an inch or two of the softest of the wood at the point, in the case of shoots that have not flowered. Keep these plants as much in the light as possible, but withhold water, so as just to keep the foliage from flagging. By-and-by remove them where the atmosphere will be dry, and reduce water still more, so as to harden the wood; in fact, be as anxious to ripen the buds as if you were treating a Vine shoot that was to produce Grapes. By February or March, under such treatment, the leaves will be getting a little woe-begone in their appearance, and a few may be dropping. Provided the plants are kept dryish, they may now have an additional rest of a colder temperature, averaging from 45° to 55°. When you intend to start them, say in April, or the end of March, set them in a temperature of about 65°. Prune back the shoots as if you were spur-pruning Vines, leaving just as many buds as you wish for shoots. Sometimes, to get a bush-like form from a young plant, I have twisted the shoots, or shoot, in a circular form, so as to make nearly every bud break; but that is not required when you have a number of shoots to go to. After pruning, warm water must be communicated by degrees, so as gradually to wet the whole ball, and as the buds begin to push a little bottom-heat will be beneficial. By the time the young shoots are an inch long it will be advisable to shift the plant into fresh soil. In doing so, pick away as much as possible of the old soil without injuring the roots, and either repot into a similar-sized pot, or one a size larger. The soil most suitable is a compost of fibry-peat, fibry-loam, a little leaf-mould, and a sufficiency of silver-sand, and bits of charcoal to keep it open, with good drainage, as a clogged soil is ruinous to all the tribe. Two things here deserve particular attention. First, the soil used should, at that season, be aired and warm, so that the roots receive not the slightest chilling effect, and when plunged again, if possible, warm water should be used for watering, at not less than 80°.

The second is, that whether for young or older plants, rather small shifts and small pots should be used. Much of the early ripening of the flower-bud will depend on the pot being early well stored and crammed with roots. A second shifting may be wanted in six weeks or so, and the same rule must apply. When thus growing, they will delight in a bottom-heat from fermenting matter of from 80° to 90°, and a top-heat of from 70° to 85° by day, and from 60° to 70° at night, with plenty of vapour in the atmosphere, and as much sunshine as the leaves will bear uninjured. A slight shade when the leaves are young will be required on bright days. Manure waterings freely given will be preferable to using rich material in the compost.

Under such treatment, young plants from well-ripened wood will frequently show bloom, when they should be raised out of the plunging material and placed in a drier atmosphere. But this will not generally happen, and, therefore, when they have made nice shoots, from about four months' growth, the mere encouragement to extension should be exchanged for consolidating growth. The plants, therefore, should be elevated out of their plunging material, but not all at once, the pot be fully exposed, and the top of the plant be exposed to a high sunny temperature, and a drier atmosphere, with such a diminished supply of water at the roots as will prevent the leaves withering. More air, and a cooler temperature, should also be maintained at

night; in fact, anything short of injury be done to prevent mere lengthening of the shoots. This treatment persevered in for from six to eight weeks, and then followed with a higher temperature, and waterings in proportion, will generally cause the flower-buds to start strong. As they approach the flowering period they will stand much longer if kept dry and in a temperature of from 50° to 60°. When done flowering and rested, they will be ready for pruning and growing in another year.

I have already alluded to the danger of anything like condensed steam on the foliage, but the great enemy to healthy growth is *Green Fly*, which, if not arrested in time, by tobacco-smoke, would soon spoil the finest shoots, especially when young. Frequent syringings in an evening will help to keep them clean when growing.

Propagation is best effected by taking off young shoots in April and May, with a heel close to the old stem, when they are about three inches long, and inserting them in sand, over sandy peat, and plunging the pot in a brisk bottom heat, and covering with a bell-glass, raised up at night to prevent damping.

I think these minutiae will exhaust the little matters connected with this genus. Like most of the *Acanthads*, there must be considerable fresh growth, and then a rest before flowering, though this is so far modified by the state of the young wood before pruning back. For instance, I have had large bushes of *Justicia carnea* in flower several times during the year, and therefore could receive little or no intermediate summer rest. I have struck cuttings, and had them in flower, when, perhaps, fifteen or eighteen inches in height, and where a stop was given to the mere growing principle. From cuttings selected from harder, better-ripened shoots, it is an easy matter to get fine heads of bloom, when the spikes will be longer than the shoot and pot together. The hardening and ripening of the shoots of the *Aphelandra*, before pruning back, has, therefore, no little influence on the well-flowering of the plant afterwards.

ALLAMANDA.

The same Subscriber says, "Will you please give the culture of the *Allamandas*? I have the *Neriifolia* and *Aubletia*, but cannot bloom them." The treatment of these has often been given, and therefore much need not be said, as something about them will be found in almost every volume. *Aubletia* I know nothing at all about; perhaps it is a synonyme for some one else.* Most of the others, such as *Cathartica*, *grandiflora*, *Paraensis*, and *Schottii*, are climbing plants, requiring either the roof of a regular stove, or largish round trellises, around which to be trained or grown in pots. They will generally be found in pots, and thus grown are great ornaments to plants that command a fair share of loftiness.

Disappointment has been caused by these plants not blooming young. They require to be strong, and rising three years before they bloom at all freely. When thus young the treatment should also be different. After keeping them at from 55° to 60° in winter, and rather dryish, little pruning back will be required when young.

When the plants are several years old, and perhaps occupy a large barrel-shaped trellis, and have filled a fifteen or eighteen-inch pot with roots, then the young shoots should be cut back pretty freely, to promote buds and hardish wood in the spring, after the plant had obtained all the sun possible in autumn, and been kept rather dry all the winter, and in a lower temperature. A few days after being pruned the plant should be syringed with warmed water, and the temperature gradually increased to from 75° to 90° during the day, and 65° to 70° at night. If at this time the pot could be

plunged in a temperature of 80° to 85° so much the better. If from this pruning too many shoots show, thin them out, and leave as many of the strongest as there will be room to grow. If grown strong, they will begin to show bloom in two or three months. Younger plants will require less pruning. After resting in winter, I have sometimes removed some of the weaker shoots, and allowed the others to grow on, and they have bloomed pretty freely. The plants must be turned frequently round, and exposed to the sun, unless when it is very bright. Rich, fibry loam, with a little peat suits them well, with manure waterings when growing. When a large plant is kept long in the same pot the drainage should be examined, part of the surface-soil removed, and rich top-dressings given when fresh vigorous growth takes place in the spring.

Allamanda neriifolia has quite a different habit, being of the bush form, and blooming in great profusion in plants a few inches in height, as well as in plants a yard in height and a yard in diameter. Every shoot that comes from a well-ripened bud will produce plenty of bloom towards its point. Supposing, now, that our correspondent has a young plant some twelve or eighteen inches in height, and with one or several stems, and with no appearance of bloom (it flowers almost continually if plenty of heat is given), the best thing to do is to prepare for next season's campaign. For this purpose give the plant little water, and reduce the temperature to from 47° to 50°, with a rise from sunshine. In February, March, or April, as it suits, prune away part of the points of the shoots; leave as many ends as you wish shoots to make a bush; increase the temperature gradually to 65° and 70° at night, and 75° to 85° by day; pot, if necessary, when the shoots are an inch or two long; water freely, using weak manure-water frequently, and there will be no want of flowers during the season. Loam and a little peat will grow it well.

R. FISH.

NEW OR RARE PLANTS.

ALMEIDIA RUBRA (The Red Almeida).—A Brazilian plant of great beauty, but little known in cultivation, though introduced to Europe, by Mr. Malloy, nurseryman at Leige, four or five years ago. Leaves rather large, broad, lance-shaped; strongly, but wildly nerved; rather recurved, and of a pleasing dark green colour. Flowers rather large, and produced in panicles at the ends of the shoots; the colour a rich, deep rose, or red. The season of blooming is September to October. It grows about four feet high, branching freely, and is a remarkable lovely plant, worthy of general cultivation. It has flowered well in the Kew Gardens.

Culture.—As might be inferred from its native country, this fine plant requires the protection of the stove, but is benefited greatly by being placed out-of-doors during the hottest months of the year. This placing stove-plants out-of-doors has the effect of giving them a more robust habit, and, consequently, enables them thereby to flower more freely and certainly.

Soil.—The best soil for Almeidias is a compost of peat, loam, and leaf-mould, in equal parts, with a liberal addition of river-sand and charcoal, to keep the soil porous and open. To induce the plant to grow freely, pot early in the spring, and, if convenient, plunge the pot in a bark bed, syringe freely overhead every evening, and supply moisture in sufficient quantity at the root. By this liberal treatment the plant will progress in growth and health, and insects will be kept at bay.

Propagation.—It is not difficult to propagate, if young, short side-shoots are taken off early in the spring, planted in a small pot, in sand, plunged in a bark bed, and covered with a bell-glass resting upon the bark,

* It is a synonyme of *A. cathartica*.—ED. C. G.

shading from hot sun. I have found the generality of stove-plants strike more readily if the bell-glass rest upon the bark a little distance from the cutting-pot. The moisture arising from the bark seems to support the cuttings far better than if the bell-glass fitted within the rim of the cutting-pot. After they are rooted, pot them off into the compost, into small pots, and replunge them into the bark, replacing the bell-glass over them for a fortnight till fresh roots are emitted. Then gradually harden them by giving air daily, and giving less shade till they will bear full exposure. After that subject them to the ordinary treatment of established plants, remembering, when the summer's growth is completed, to place it out-of-doors for a few weeks to ripen and solidify the wood.

PULTENÆA ERICOIDES (The Heath-leaved Pultenæa).—This very handsome Heath-like plant is a native of the banks of the Swan River, in Australia. The seeds were sent home by Mr. Drummond and the plant was raised and flowered first in the Pine-Apple Nursery, Edgware Road. It may be described as a small shrub with narrow leaves, like a Heath, and a branchy habit. The flowers are pea-blossom-shaped, of a rich, brown colour, broadly edged with yellow. They are produced in double rows round the stem from the axils of the leaves, and appear, at first, to terminate the shoot; but it soon pushes through, and side-shoots also spring out under the flowers. I saw the first flowers open, and prophesied that it would prove a first-rate greenhouse plant; and so it has proved, though it is, as yet, very little known. A good figure of it may be seen in the "Gardeners' Magazine of Botany" for 1851, page 145; but that figure does not give a full idea of the beauty of a well-grown entire plant.

Culture.—This plant is as easy to grow as any other New Holland plant. It requires a good, dry, airy greenhouse, and should be placed near the glass through the winter, and when the blooming season is over should be placed in a close pit, kept to a temperature of from 55° to 60°, till its new growths are completed. After that it should be placed out-of-doors, fully exposed to the sun to ripen its wood; care being taken that its roots are protected from the fierce rays of the summer's sun, and also abundantly supplied with water. The best way to keep the roots cool is either to plunge them to the rim in coal-ashes, or (which I prefer) to place the pot within another larger one, and packed with moss between the two pots.

Propagation.—It is easily propagated by inserting half-ripened young shoots in sand, in May, and placing the cutting-pot on a cool, shaded surface, under a bell-glass, there to remain till callosed, and then removed into a gentle heat to force out the roots. As soon as roots are formed the plants should be potted off, and placed in a cool frame, and densely shaded for a few days, till fresh roots are emitted. After that, less shade and more air to be given, till the plants are able to bear full exposure.

Soil.—Like nearly all plants from that country, this plant loves a light, peat soil, with plenty of silver-sand mixed amongst it. The pots should be well-drained, and the soil pressed firmly down in the pot. Light potting does not suit it.

This plant has one advantage over many others, it scarcely ever requires stopping or training, but naturally forms a handsome, dense bush. I consider every greenhouse ought to have a specimen of it.

T. APPLEBY.

MATS, OTHER COVERINGS, AND TYING MATERIALS.

LIKE all classes of the great British community, we think ourselves injured by the war that is waging in

the East. *Garden mats*, so necessary an article for winter covering, as well as for tying up, are no longer so plentiful as they once were. Their principal source is, to a certain extent, scaled up to all but a clandestine or circuitous commerce, which, of course, adds considerably to the cost of such as find their way here; and the article in question does not attract sufficient attention to be regarded as one of national importance worth endeavouring to obtain a supply from home manufacture. In fact, I question much if the raw material could be grown in this country to the perfection necessary for that purpose.

Under these circumstances, we must substitute such other protecting materials as we have, and get our tying substance elsewhere as well. The latter promised to be quite accomplished, several years ago, by the *Cuba bast mat*, which, if had in sufficient quantity and cheap enough, would do very well; but either the supply must be limited, or it may not have attracted the attention of traders, for certain it is that it is not so plentiful as to meet the wants of the gardener and others.

Some hempen material seems the only substance that is likely to be made subservient to the wants of the case, aided by what matting can be had. But, as there must be some covering or other wanted, we must see what can be done in other ways than by mats. *Reeds* seem the most likely thing to answer where coverings of tolerable thickness are wanted, and a sort of skeleton frame made to the size wanted will suit best, the reeds being laid on to the thickness of an inch-and-a-half, or more, as may be thought necessary, and tightly bound on by cross-pieces and string fastenings, taking care that the reeds are laid in the direction for the wet to run off. *Straw* will do in place of reeds; but not so well, as it is not so durable, but it answers very well. Better than either, however, are good *wooden shutters*, which have also the good property of lasting several years, and are moved off and on with less danger of breakage than thatched frame-work; besides which, in very severe weather, where, perhaps, the thermometer may be some twenty or more degrees below the freezing point. Rough litter of some kind or other may be heaped on to any extent to keep out the frost; this is on the supposition that the shutters above-named are covering some glass structure not otherwise heated. In market-gardens, large quantities of straw, in the shape of loose litter, are used at night for covering up frames; but the amateur, who has only one or two such frames, will find it inconvenient to cover them up at night in that way, as the liability of stones and other heavy things to get in amongst the litter makes the breakage of glass an almost certain matter every now-and-then, except with those whose long and extensive experience enables them to judge tolerably well in the handling whether it contains any foreign substance or not, and proportionate care is taken accordingly; besides which, it is a dirty thing next the glass, and to sweep every morning is not unlikely to remove much of the putty that is partially loose, but which might have done duty for a long time to come if left alone. *Oil-cloth* coverings are very good, still they are not sufficient without something else in addition; and the new article, "*friji domo*," though, likely enough, good in its way, is too thin for general purposes where warmth is required.

Now, I have long been of opinion that something better than anything heretofore tried might be made for coverings for our numerous frames, &c.; assuredly some coarse woven material, rendered water-proof by some simple and inexpensive process, might be made available to our use. Could not *Cocoa fibre* be worked up into something that would both wear well and keep out frost and wet, and, not being so expensive as hempen or woollen fibres, it would come cheaper, bulk for bulk,

than either? I only draw attention to this, as it does not seem to have attracted much notice that way, although it has been in use for some years in other ways.

I have often thought, that as *tying material* is always a substance much wanted, that if quantities of the bast mat was brought into this country in a simply dressed state, it would be really more available for the purpose than when wove into mats; besides which, the cleanest and best material only need be sent in that way, and the expense of weaving avoided; this, however, is not likely to be effected under present circumstances, unless a new and better source be found out; for our supply, certainly, bundles of dressed matting fibre, tied up like hemp, or in some other way, could easily be forwarded here from the countries where it grows to perfection, and it would do away with that difficulty there often is, in finding a really good mat for tying purposes, such being, certainly, less plentiful now than twenty years ago.

While on this subject, I must call the attention of the rural cultivator to the use of some of the most common things in his garden for certain purposes of covering. In cold situations, the wood of *Fig-trees* does not always ripen sufficiently well to stand a severe winter, and some protection is occasionally given them; these I have sometimes afforded in the shape of the long, upright stems of Jerusalem Artichokes, placed diagonally against the wall, and have found them answer very well, a very thin covering being sufficient, the stems scarcely touching; they also serve to form a thatch over some uncertain *Pinus* or other shrub; a few boughs being mixed with them to prevent heavy snows breaking them down. In like manner, the rough, sturdy stems of Indian corn might, I think, be turned to like account, as I have seen them eight feet high, and very strong; and as there are often many things about a garden that want protection, but are denied house room, such things may be occasionally turned to account. *Fuchsias*, *Hydrangeas*, and *Weigelas*, are not always hardy enough to stand sharp frosts without injury to their tips, while a little protecting substance placed against them enables them to do it well. In a general way, the pots may be placed close together, and if against tree or wall, so much the better, where they may be slightly covered, as above, adding more if severe weather sets in. Asparagus stems, tied in small bundles, answer well for such purposes.

In advising tender or delicate plants to be protected from severe weather, it is right to observe, that too much covering is attended with bad consequences; plants too long immured become tender and partially blanched, and are not in a condition to resist either cold or light, until gradually inured to these elements again; when, therefore, a frame of *Cauliflower* plants has been covered up, perhaps for a month or so, by snow or other causes, be careful not to admit too strong currents of fresh air at first when mild weather sets in; for the plant is in that artificial condition that disables it from enduring a sudden change. The leaves are partially blanched, though still green. They are crisp, and, in other respects, it is an altered plant from what it was when first shut up. Other plants suffer in like manner; even the deciduous things above-mentioned, if confined long, begin to put forth buds of a delicate and artificial character; if the weather in any way will allow it, this ought not to be so, but the plant should be allowed more air and light as it shows signs of progress.

In conclusion, I again beg our gardening friends residing in the neighbourhood of manufactories, where Cocoa-fibre matting and other things are made, to try and suggest to enterprising parties in that way to make us something more suitable than asphalte, Russian mats, and other articles we have been accustomed to use; and, possibly, a useful tying material will also

present itself in some way or other; for, assuredly, at the present time, both are wanted. J. ROBSON.

OLD FRUIT-TREES.

OUR friend, Mr. Rivers, is an admirer of old Oaks. Here I agree with him; but when he states aged fruit-trees have no beauty, and ought not to be tolerated in a house, I differ with him. Though phrenologists tell me, that with the exception of a nameless bump, the organ of destruction is the most prominent in my upper story, still I have a great respect and regard for a fine old fruit-tree; and it is only a short time since that I was annoyed by finding the stem of an old favourite cherry-tree burned that I had laid aside as a remembrancer of an old friend. Five hundred and ninety-seven dozen of cherries were gathered and sent to London, in April and May, in 1841, from this tree alone. Besides, when ripe, they formed a very tempting arch in a house similar to the sketch No. 1. (p. 183). Its fine old arms produced not only single, but bunches, aye, masses, of flowers and fruit; and I shall never see its like again. This is no imaginary description or fancy of the brain, but facts; and will our friend assert that the above was not beautiful, and highly deserving of a place in the best house in the kingdom?

I believe I am an older gardener than our friend, and have not to learn that where large supplies are demanded, the motto in a garden, "*Waste not, want not*," is the only one to keep peace. Can such a supply be kept up by young trees? As a sample and caution to young gardeners not to be too fast in clearing away on taking the charge of a new situation, remember you have not all got such as the good late Archbishop of York was to sustain you, and cannot, therefore, with propriety make a clearance like a Bailey.

In the course of my profession, I was sojourning within a hundred miles of the Isle of Wight, and was requested to call upon one of the largest proprietors of land in the county, who was totally blind. He told me to give his place a general look over, as, for some years, he had not had his fine green-gages, apricots, &c., that he had in former times. I was to enquire into this—a task which I certainly did not like. On inspection, I found the walls covered with as fine trees as one could wish; their leading shoots as straight as rifle-barrels; but no fruit. I returned, and told him that I could not improve them; that, in the course of a year or two, he would have plenty. But alas, poor man! long before they had come to maturity he had passed away to his grave. Now, had his young gardener, before he used the axe, ascertained what his noble employer really wanted, he would not have done as he did.—D. FERGUSSON, *Stowe, Buckingham.*

DIOSCOREA BATATAS.

IN your number of the 4th of December, you have a notice about the Chinese Yam. As one having been in China, and partaken of this tuber, as well as the Indian Yam, permit me to say a word or two on the subject.

I have been greatly surprised at the disappointment expressed by many persons who have attempted to cultivate the tuber. They plant tubers about the size of a pea, and look for a full-sized Yam a foot long, and four to six inches diameter! Now, is there anything wonderfully strange, that with such a weak beginning they have a result of a few tubers weighing an ounce, more or less? They are all disappointed; yet the truth is, they ought to be delighted with such a liberal production. Why have they not patience, and proceed, year by year, as they would do, have, and will yet do, with any other novelty? I will answer for it that their crop will be larger, finer in quality, and more abundant in tubers, as they proceed, and, in time, instead of Peas, they will plant good-sized sets of the Yam, such as they plant of Potatoes. When they have obtained a full-sized Yam as big as *their head*, they surely will then think their labour not unrewarded. I could write a great deal on this subject, but time will not permit.

Mr. Errington must not be disappointed either, because he boiled a Yam of three ounces weight, and found it like "soap, &c."

It is as difficult, nay, more difficult, for a person unacquainted with the practice, to boil a Yam properly, as it is to boil a Potato properly. The Yam, when properly boiled, resembles a ball of flour, the size of from a large cricket-ball to a moderate-sized-man's head. The skin is rough and blackish, but the outside, when properly boiled, is as white as possible. When improperly boiled, it is either watery, waxy, and sometimes "slimy," but the bad cooking is the cause, and, perhaps, bad treatment in the cultivation. —JOHN CHINAMAN.

ORCHARD-HOUSES.

I AM quite pleased that I have drawn out Mr. Ferguson in the matter of Orchard-houses, and that he has been induced to give us some spirited sketches. I can, however, plainly see that Mr. Ferguson is not the poor gentleman's gardener. He is a professional aristocrat. He lives at Stowe the magnificent, the forsaken, and he has, as the French say, assisted at its "decline and fall." His sketches of houses are pretty—to look at; but with hot-water pipes they would be too expensive for the humble beginner, who merely requires an Orchard-house to supply the place of brick walls which probably he has not. The forcing-house fitted with hot-water pipes for Peaches and Nectarines is quite an aristocratic affair. But let us look into the merits of Fig. 1. p. 183. It is recommended to have the trees trained, I suppose, to a trellis under the glass, so as to cover the inner side of the roof completely. Fine fruit may be grown in this way, undoubtedly; for it is the old-fashioned usual method of growing Peaches. The new feature, as given by Mr. Ferguson, is to have the borders filled with "Ferns, and Mosses, and Orchids," to be kept quite moist *always*; thus to give a mild Cornish atmosphere, excellent for growing Brocoli and Cabbages, but very deficient in ripening power. It is surprising that such advice could come from Stowe. Depend upon it it has never been tried, or we should not hear of Peaches being sent to market in August; they might possibly "ripe or rot" in November. I can have nothing to object to in the training of trees to trellises under glass. Large crops may be produced, as witness the Peach-house of Mr. White, of Weathersfield, or the magnificent Orchard-house, 300 feet long, at Basing Park, near Alton. The latter is, perhaps, the most perfect house for the growth of Peaches, Nectarines, Plums, Cherries, and Pears, in Europe. (I have not, however, seen those at Trentham.) The trees are all trained to semi-circular iron trellises, and admirably managed by Mr. Duncan, the skilful gardener there. The objection to trees trained, as Peach-trees generally are, to trellises under glass, and over the head of the cultivator, is the skill and the disagreeable overhead labour required. Such trees must, also, have a skilful gardener to prune them, or they are soon spoiled. A Peach-bush may be pruned in the most unskilful manner, yet it *will* bear fruit, and do well; and, then, in making the house (such as Fig. 1) a promenade-house, to look at your trees and your fruit, the head must be constantly thrown back, and even then the fruit cannot be seen, as it is always on the upper side of the trellis. Mr. Ferguson is very ingenious at sketching; he must give us a sketch of a machine to keep the head in its proper position while walking under his Peach-trees.

Now let us look into the merits of sketch No. 2. This is to have Vines or Peach-trees trained under the roof; the borders are to be filled with Verbenas and Petunias, Cucumbers and Calceolarias, and other lovers of moisture; the border over the central walk,—how pretty!—is also to be full of flowers requiring plenty of water, so as to saturate the atmosphere thoroughly,—what a climate to give flavour to fruit! Why not have an Aquarium and grow Water Lilies? and why not import some of the edible frogs (*Rana esculenta*), and fat them for Covent Garden? I propose to call fig. 1, the Damp Orchard-house, and fig. 2 the Shower-bath Orchard-house. How agreeable would be a promenade under the central-bed just after the plants are watered. Still, it may be made useful in a family; for we are only to suppose a shower-bath prescribed as beneficial to the young ladies, and the gardener, every morning in June, the moment he has watered his over-head darlings, running into

the house and saying, "please, the shower-bath is ready;" and the said young ladies in their bathing-dresses taking their shower-bath while promenading,—all the time looking at "Fuchias and French Beans" at their feet, and Peaches and pots over head;—verily, "Is't the picture striking?" Seriously, the idea of growing Ferns, and Mosses, and Orchids, in Orchard-houses is perfectly ridiculous. In his statements, Mr. Ferguson goes into the line of beauty; in his recommendations he must not be followed. Who that knows fruit-tree culture would, for instance, have several sorts of Peaches on one tree to give a succession of fruit? With Pear-trees trained to walls it is practicable; with Peach-trees trained to a trellis under a glass roof it is most difficult, owing to the great difference in their habits, as regards vigour of growth. Let Mr. Ferguson try, which he never has done, how the *Red Nutmeg*, or *Early York*, or *Petite Mignonne* Peaches would succeed on the same tree with such sorts as the *Royal George*, or *Bourbine*. In spite of the greatest care in pruning, even by such a "professional" as Mr. Ferguson, the robust growers, such as the last-named varieties, will destroy those of more delicate growth. But, so strong is his prejudice against the very nice and gratifying mode of growing fruit-trees in pots, or tubs, that he seems inclined to recommend any other mode of culture, however absurd. An imitation from Wordsworth may be put into his mouth, as follows;—

"I do not like a potted tree.
The reason why, I cannot see,—
I do not like a potted tree."

In looking over the article by Mr. Ferguson, I have come to the conclusion that he is a "fast man"—with his pen; and that I am dull and heavy-headed, for I cannot understand all that he writes. I wonder if he knows the meaning of being "check-mated?" I do not, as employed by him. I wonder, also, how many of his Peaches exceed nine inches in circumference? I wonder if a poor gentleman, fond of his garden and his Orchard-house, is always thinking of "pounds, shillings, and pence," and how they will "pay?" I here feel it my solemn duty to tell Mr. Ferguson that my Orchard-house idea did not come from Essex—the land of calves. He lived in that "green and clammy" county for several years, and, I have heard, was, at that time, a great lover of those gentle creatures when well bred, and much interested in the architecture of their *pens*. I have never heard that *houses* were built for them, but Mr. Ferguson knows best. It is, I think, some sixteen or eighteen years ago that I built four lean-to houses, with fixed glass roofs and brick walls, with sliding shutters in them, back and front. These are still in existence; and I have never regretted having departed from the long-established method of building such houses, viz., with sliding lights and pulleys, which I now well know are useless and extravagant beyond belief, costing cent. per cent. more to build than houses with fixed roofs, and leading to breakage without end.

I am quite sure I have a strong natural tendency to make fruit-culture cheap and easy, for I feel that I should like to see our most industrious cottagers able to grow and sell Peaches and Pears, and thus add to their too few comforts: and I hope the day is not far distant when we shall see the matter taken up in the rural districts, and, perhaps, schools formed, to teach those inclined to learn the culture of superior fruits, and societies to grant small loans to aid them in commencing their culture. Of one thing I am deeply convinced,—that the labourers in our rural districts require something done to raise them in the scale of society.

This tendency of mine broke out when I told one of my labourers to make some boxes, costing about 3s. each, with inch boards, rather than employ an artist to make them with moveable sides, castors, &c., at 30s. each, as recommended by Mr. Fish, by the way: my fig-tree boxes have bars at the bottom, so that the roots can strike through into the soil. Only think of mounting them on castors to keep them from contact with mother earth! We need not wonder that many gentlemen of moderate incomes are fearful of employing a regular gardener educated in our first-class gardens; for, although clever, good gardeners, they will not attempt to do anything in experiments: Vineries must be built with massive brick walls, and equally massive rafters, with sliding lights and pulleys, and sashes in front; all other gardening matters must also be done just as they have

been accustomed to see them in the Duke of A's, or Lord B.'s gardens. Many employers are alarmed at this, and do not enjoy half the produce in fruit they might do, if so much money was not expended in these massive structures. A lean-to Vinery, with a fixed roof formed with light rafters four-and-a-half-inches by one-inch-and-a-half, and walls of brick, or boards, according to taste, with sliding shutters, back and front, will give, as I can testify, as fine Grapes as any one can wish for. The history of my first Vinery will, I have no doubt, be very interesting to Mr. Ferguson, and so here it is.

Just ten years ago, I found that a sand-pit, from which I had for many years dug sand, had become inconveniently large; I therefore made a fresh one, and then pondered on what I should crop my old pit with; it had a southern exposure, and was, of course, very hot. The sand is calcareous, and very favourable to the growth of Vines, for Hambro' Grapes, in hot seasons, had ripened on young Vines trailing on the ground, so I decided on making my pit into a Vinery. My bricklayer was consulted; he shook his head, and talked about "foundations on sand," and concrete being required. I began to think about his bill. I had seven children, and merely wanted Grapes for my family. I thought, ought I to spare so much money to please my fancy? and so I sent my bricklayer away. I happened at that time to have a large number of Larch poles waiting to be used; I thought I would try and build a Vinery after a new fashion. My Larch poles were sawn once down, their lower end charred, and a coating of coal-tar given to them; they were then let into the ground (their flat sides outwards) in two rows, one for the back wall, the other for the front; I then nailed on to them asphaltic felt, double, to give increased thickness; a plate and light rafters were then placed on them; the roof glazed with sheet glass, at 3d. per foot; apertures for sliding shutters were cut in the front and back walls, and, behold, my first Vinery; perfectly original, and a regular outlay of a house. For eight years I have had abundance of Grapes from it for my family, from the middle of August till the end of October. I have had the felt painted over twice with coal-tar and lime; it looks neat and tidy, with its black walls and white rafters, but not picturesque, like our friend's sketches of old Peach-trees; but, like them, it has done good service and seems likely to do much more.

In great contrast to this is the new Orchard-house at Audley End. Lord Braybrook has Peach-houses and Peach-walls in abundance, but he wished for the luxury of walking *among* his Peach-trees rather than *under* them; accordingly, a house has been built, ninety feet long and twenty feet wide; the sides, two feet two inches brick, and glass two feet six inches, the lights swinging on pivots; inside there are three beds slightly raised; one in the centre, six feet wide, and two side-beds, each three feet three inches wide; the paths three-feet and a-half wide; the roof is to be kept perfectly clear. Now, this is an aristocratic Orchard-house, in which there is no occasion for hot-water pipes; for, as I have before stated, trees, as bushes, in Orchard-houses, do not suffer from spring frosts. I have also proved it, which is better; for, in 1852, April 19th, we had a severe frost of 12°, the trees all setting their fruit; 1853, March 25th, the trees in full bloom, also a severe frost of 14°; 1854, April 25th, 8° of frost; 1855, May 30th, the fruit set and swelling fast, 12° of frost. Now, in all these terrible visitations, my Orchard-house bush-trees escaped; but my trees trained to a trellis, under the glass, suffered so much, that scarcely a fruit escaped. I have, therefore, a right to say, that a well-built Orchard-house, without artificial heat, is spring-frost-proof.

To return to the sketches given by Mr. Ferguson, I regret that he omitted to give No. 3. No. 4 is good, for the fixed roof is recommended; but the hollow wall in front is a clumsy invention; and ventilators should be in the back wall, or spider will soon make its appearance. No shelves should be over head; they are very well in the houses used by market-gardeners, and, perhaps, "pay," but they are not agreeable. In sketch No. 5,—Oh, how heavy headed I am! I cannot understand the highly figurative description; but it may, I think, be called the "Corkscrew Cavern Orchard-house." No. 6 is a common lean-to Vinery; but, as to the recommendation to grow Strawberries, French Beans, and, above all, Cucumbers, under the shade of Vines, which

ought completely to cover the roof, it is, like the Corkscrew-house, an amusing flight of fancy. No. 7 is, really, a good sketch of a forcing Peach-house, such a house as may be seen in most of our good gardens. A great improvement on this is a house now building by one of my friends, near Brighton; a lean-to, resting against a brick-wall; height in back, twelve feet; width, fifteen feet; Peach-trees are to be trained to the back wall; and three feet span in front of the wall left for a border to be covered with iron grating, to serve as a walk; then a slightly raised border, seven feet wide, on which Peach-trees in pots are to be placed; then in front, within two feet of the front sashes, Peach and Nectarine-trees are to be trained, as espaliers, to neat iron rails; thus there is a three feet walk at back; the same in front, and there will be a nice succession of fruit. Those on the wall will ripen first, those on the trees in pots next, and those on the espaliers in front last. This house, invented by a non-professional, combines all that can be wished for in a fruit-house, and beats out-and-out all the sketches given by Mr. Ferguson, from one to nine; sketches Nos. 8 and 9 are obsolete, unclean, and unworthy of the present day. I am surprised that a sketcher at Stowe could think of giving them; he surely cannot have seen the new fruit-houses at Trentham, or the Raspberries forced at Arundel and Frogmore.

I will conclude by noticing the conclusion of Mr. Ferguson's articles. If he ever came to look at my Orchard-houses here within these three years, he either came on a Sunday, when I and all my people were at church, or at some other time *unknown to any one here*. Why did he not ask to see me? The Peach-wall at Chiswick was really superb last autumn. There were not, however, 500 dozen gathered; but if there were, and they were sold at three shillings, or four shillings, per dozen, it would not, to quote Mr. Ferguson, "pay." The wall, I should calculate, cost £1500; interest on this, at the usual rate charged on buildings, viz., seven per cent, £105; labour say £30.

This question is asked, "How is it that Orchard-houses retard in place of ripening?" You are a good and clever gardener, Mr. Ferguson, and a scientific propagator of Laurels—they *do* require much science—but you know nothing whatever of the growth of fruit in an Orchard-house. Let me tell you how and when Peaches ripen without fire-heat, under glass, in a lean-to house facing the south. *Noblesse*, *Violette Hâtive*, and *Royal George* Peaches ripened in 1854, August 12th, or a fortnight before those on walls. In 1855, in the same house, they did not ripen till August 20th, but still they were a fortnight before those on walls in the same district; and this is the usual difference. In a span-roofed house it is quite interesting to note how the time of ripening may be influenced by situation in the same house. My Orchard-house, in which I grow fruit for my family, is about twenty feet wide, abutting S. E. and N. W., the border, therefore, which runs along the north-east side is partially shaded by the trees in the central border, or, at least, if not so, it always feels the cool winds from that quarter, so that the fruit is retarded. My *Royal George* and *Noblesse* Peaches standing there did not ripen in the past season till the first week in October, whereas, those on the south-west side of the central border, and on the south-west border, ripened early in September; so that, although I have generally recommended my friends to build span-roofed houses, abutting N. E. and S. W., it will be seen that a house like mine will give a long succession of fruit. Lean-to Orchard-houses, particularly if the back wall is of brick, ripen their fruit earlier than those with span-roofs, but they are not so agreeable for a promenade. As to the colour and flavour of Peaches from an Orchard-house, as they have never been seen or tasted by Mr. Ferguson, we must excuse his assertion. I can only testify that, although the past season was notorious for poorly-flavoured Peaches from walls, I had some from my potted trees finer than I have ever eaten, and their colour of a more brilliant crimson than I have ever seen from walls. But some kinds, on trees too much crowded with fruit were, like the wall Peaches, very deficient in flavour.

As to the bit of "soft-sawder," at the end of Mr. Ferguson's article, I thank him for it; but must tell him, that potted-trees were (and, I suppose, are) never intended to take the place of established trees against walls. How

could our markets, or our gardens, royal and noble, be supplied without miles of brick walls? Wealth can always command luxuries. It is not for millionaires that we require cheap Orchard-houses or cheap Vineries. It is for the poor gentleman who has the taste to enjoy a Peach, or a Nectarine, as well as my Lord Duke, but who cannot spend £1000 on a brick wall, or a Vinery.

I would rather, yes, much rather, be the man to tell such how to build a Vinery with Larch poles for ten pounds, than be the architect of the Crystal Palace; or, as it may now be called, the Crystal Folly.

I have a Vinery in point, it is thirty feet long, eleven feet wide, and cost, as nearly as I can calculate, £10 10s.; its sides and ends are half-inch boards nailed to Larch poles, cut once down, charred and tarred, and let into the ground with their flat sides outwards; it was built by one of my labourers, and owes its cheapness partly to its site, for it is on a sand-bank; height of back, four feet; front, one foot. The path is excavated, and, as the sand is dry, it answers well; but for 30s. or 40s. more, a house of the same materials might be built of the same dimensions on level ground, of course with the walls higher still, with a sunken path. Who would not, then, have Grapes? In fact, every decent well-to-do person ought to have a Vinery. I ought now, also, to tell how to keep Grapes in such a house. I found, this autumn, my house, just described, full of Hambro' Grapes, and having others, I wished to keep them for a late supply; but I had no hot-water pipes, and could not conveniently build an Arnott stove. I wrote to you, Mr. Editor, and you procured for me a 25s. Joyce's stove, with prepared charcoal. I used the prepared and then burnt common charcoal, which neither injured fruit nor leaves, and I kept my Grapes well till nearly the end of December. I mention these matters to show at what a cheap rate garden luxuries may be procured.—THOMAS RIVERS.

WEIGHT ATTAINED BY PUMPKINS.

Your correspondent, "G. WILSON," wishes to know the weight and girth of the largest British Pumpkins on record. If he will look into London's *Gardener's Magazine*, vol. 7, page 101, he will there see an account of one grown by Richard Saunders, gardener to C. Hoare, Esq., Luscomb, near Exeter, that measured in circumference, 9ft. 3in., and weighed 245lbs.—W. H. MOULD, *West Everleigh, Wilts.*

FERNS AND LYCOPODIUMS FOR GARNISHING THE DESSERT.

NOT having seen any account in any Gardening work of the materials which are used for garnishing the dessert, and as the Russian style (*à la Russe*) is getting very much in fashion amongst the Nobility (viz., by placing the dessert on the table at once, and serving the dinner from the side-boards), I think something more than the different leaves of shrubs, variegated Kale, Ice plant, &c., is required to embellish our fruits; fronds of Ferns are used here as a change, with very good effect, giving the fruit a somewhat exotic appearance. Twelve dishes, for example:—

Top dish, *Pteris longifolia*; bottom dish, *Pteris serrulata*; two flanks, *Pteris arguta* and *Aspidium filix-mas*; four corners, *Asplenium Brownii*, *Asplenium Marianum*, *Asplenium adiantum nigrum*, and *adiantum cuneatum*; and for four less dishes, *Lycopodium robustum*, *L. flexuosum*, *L. densum*, and *L. cæsia*.

Of course, the gardener cannot claim the flanks at all times, as the housekeeper will be anxious to come out with her bon-bons, preserved fruits, &c., and, as a matter of course, find her own material for garnishing. It is true, there are many that would not cut their pet Ferns for such a purpose; and justly may they be termed pets, for of all plants, Ferns are, I think, the most interesting.

The beautiful crimson leaves of the Barbarossa Grape Vine makes a pleasing contrast to some kinds of fruits at this season of the year.—J. PERKINS, *Thornham Hall, Suffolk.*

QUERIES AND ANSWERS.

GARDENING.

HOT WATER NOT CIRCULATING.

"I purchased a second-hand lean-to greenhouse, 24 feet by 12 feet, which I determined to heat by hot water. I obtained a Burbridge and Heeley's patent boiler, which cost me £2 5s., and fitted it with 4-inch flow and return-pipe, going round one end and the front of the house; but I have been sadly disappointed in my expectations of its heating. The lower pipe heats first, after two hours' heavy firing; but, with all the fire I can put on, I can hardly get the upper pipe to be warm. I always understood the flow or upper pipe would be first hot, and the water would return by the lower, which would be coldest; but mine is quite the reverse. My flue-door is a common one: I have a small door at the top of the boiler to clean out the soot. Will you be so kind as to tell me what you think is the matter,—whether the boiler is too small for the size of the house, and the cause of the lower pipe heating first? Is there not some place in London where I could obtain a boiler and furnace altogether in one, and set it in the greenhouse?—R. R."

[We have lately said much upon various modes of heating. With a little attention you might have seen enough to meet your case. We write, however, immediately, that you may effect the necessary changes before the very severe weather assails you, or we should only be telling you how to shut the door securely after all the valuable property had found a way out of it. Your boiler we presume to be quite large enough, and will yield enough of heat even for more pipes, if properly set. Any bricklayer who knows how to throw the most heat from the fire into a copper wash-house boiler will not go far wrong. In this case, the fire is made in the middle, passes over a break at the back, comes round the sides, and passes over the top up the chimney; and a damper should be in the chimney to regulate the draught, and to keep the heat from a bright fire round the boiler, and prevent it bolting up the chimney to heat the external air. Now, according to the plan you have adopted, so far as we can see, we are not surprised that you have failed to get heat into your upper or flow-pipe. We should not have been surprised if, with such a strong fire as you speak of, your boiler, chimney, &c., had all been blown into smithereens. This has partly been avoided by an air-pipe fixed at near the farther extremity of the flow-pipe—thus helping to save you from a crash—without getting a particle of water into the near end of your flow-pipe or the higher end of your boiler. Your reservoir is a considerable distance from, and considerably elevated above, the top of the boiler—how many feet we cannot say; and from this reservoir a feeding-pipe is taken *not* to the flow-pipe, as most people would have done, but to the lower or return-pipe, near to where it joins the boiler. The upper pipe does not come at right angles from the side of the boiler, as the lower one does, but rises considerably above it, and then slopes gradually down, until it runs at a certain equal distance from the lower pipe, both connected at the junction with a semicircular piece, and near to which and the upper pipe is fixed the air-pipe, higher than which the water cannot get, with the exception of the influence its pressure may have in compressing the air above it, the force of that compression being vastly augmented by the long tube connecting the reservoir with the lower or return-pipe. Had you an open pipe at the highest point of your flow-pipe, and rising as high as your reservoir, you would have water to the top of your boiler; and there would be no want of circulation, as water will get to its level if it be not prevented by an opposing medium. Leave two ends of a crooked tube open, or formed as your pipes, with a semicircular or rectangular bend; and when you pour in water at one tube, it will rise equally high in both. Put a cork, air tight, in one side of the tube, and pour the water into the other, and though you fill the open side full, you will not get it within a good distance of the cork on the other side, let the water compress the air as it will. Take a tumbler, and fill it three parts with water. Place a dram-glass, reversed, upon the surface of the water, and, though you press it right down to the bottom, you will perceive that all you can do will fail to cause the water to rise any great

height in the dram glass. The air prevents its doing so; just as the air in the top of your boiler and flow-pipe prevents the water getting up. Make an opening, in either case, for the air to escape, and the water, with the pressure from your reservoir, will immediately take its place. Your simplest remedy, perhaps, would be to place the feeding-pipe in direct contact with the highest point of the flow-pipe. The reservoir, or cistern, if large enough to allow the water to expand, might even be fixed on to the highest point of the flow-pipe. As time, however, is precious just now, the quickest remedy would be to drill a hole in the highest point of the flow-pipe, near the boiler, and there insert or screw in a pipe, such as is used for gas, say half-an-inch inside measure, and let it rise a little higher than the reservoir.

There seems to have been carelessness in the scheme adopted; and it is so far fortunate, that from compressed air, and compressed steam, and something of the hydrostatic press combined, there has been no serious accident.

We do not know of any house in London where gas-boilers, &c., could be obtained; but we can see no objections to your heating your present boiler with gas, if it suits you, as being easier managed, but not cheaper than coal.

If these hints do not meet your case, let us know, and we will think the matter over again.]

EFFECT OF LIQUID-MANURE ON POTS.— WINTERING FANCY GERANIUMS.

"I observed an article lately, by Mr. Beaton, on potting alleging, that in using liquid-manure it is absorbed by the pots, and concentrated in the interior of the pots, by long accumulation, till it becomes highly deleterious to the plants. I cannot say a word on this point, either for or against, but I have always felt much annoyance from that green matter which collects on the outer surface of the pots, and have often wondered that something was not contrived to remedy the evil. I have thought, that if the pots were glazed inside and out, the same as common earthenware, it would certainly prevent it; and it struck me, when reading Mr. Beaton's article, that it would also cure what he complains of.

"I have talked with some persons, however, who argue that glazed pots would be prejudicial to the health of the plants. What is your opinion, or Mr. Beaton's, on this point? About three months ago I tried an experiment with a part of my pots. I gave them a coat of Grate varnish in and outside, and have plants in a number of them. It will, however, require some time to prove whether it will be a complete and permanent preventive of the green matter.

"In all the articles that I have seen in your valuable work upon the *wintering of Geraniums*, I think I have seen nothing referring to the Fancy sort. Will you be so good as to give a few words on that subject. I find them much more difficult to bring through than the other sorts, by any method that I have tried. Should they be kept as dry as the other sorts? and what temperature is most suitable for them in winter? Do they agree with a moist or a dry atmosphere? Should they be cut down in autumn the same as the other sorts, or not till spring? I may also state, that I was rather caught on the morning of the 10th of December by its very severe frost, and not anticipating this I had no fire, and the earth of the pots was all hard before I got the heat up. However, the Fancy Geraniums and two of the Cinerarias are the only plants that appear to have suffered. The leaves of the Geraniums are all withered since, and also some of the young succulent stems. How should I treat them now?—J. M."

[Mr. Beaton never "alleged" that liquid-manure, or any other liquid, "concentrated" in the "interior" of a pot, and you may have done mischief to your pots far greater than that you intended to avoid, by varnishing the inside of these pots; for who knows but Grate varnish is rank poison to plants; or who knows, in these days of alterings and adulterations, of what any compound is compounded? We

should not keep the essence of strong water from the body of the pot, for the pot "fixes" it, and the roots draw it gradually out of the pot; but if used too abundantly and too strong, it oozes out on the sides of the pot, where it does the mischief by keeping up bad smells under the leaves and among the branches. Keep the outside clean, and the roots will not fail to keep the inside "all right."

Glazed pots are not better or worse than common pots which are kept clean and tidy; but they are a great deal dearer, and *pot bills* of all sorts are sufficiently dear already.

As to *wintering Geraniums*, you have misunderstood the writings about the process altogether. It is only the great and good of the Cape Scarlet breed that are kept dry over the winter. Greenhouse plants, and Fancy Geraniums, and all the slender growing of the Scarlet breeds are not treated that way, and not a word about them, so treated, that we know of, is found in our books. Still, we have not the slightest doubt about the practicability of keeping all kinds of Geraniums half-dry in winter, and at rest for four months or more, anywhere that is *perfectly* free from frost, and is never hotter than 40°. Any degree from 30° to 40° is perfectly safe for Geraniums at rest, if the place is entirely free from damp. If you had acted on Mr. Fish's repeated advice, you would not have lost a leaf that frosty morning. The earth in some of our pots for seedlings was as hard as cannon-balls that same morning; but the seedlings are safe enough yet. Look in our indexes for greenhouse treatment in frosty weather.

In answer to "J. J.," who should never write to a private soldier for news of the next campaign, "Large Chrysanthemums" have not been "overlooked." When Mr. Beaton inspected the collection of which he wrote he made marks and notes on them for publication.—B.]

IMPROVING A LAWN ON A CLAY SOIL.— CLIMBERS FOR A WEST WALL.

"Our situation is very exposed and open, six miles from London; soil, heavy clay, but well drained; the lawn not at all overshadowed; consequently, open to the full power of the sun in summer, which burns up the grass, and by that means causes the lawn to look bad at that season. In damp weather the clay sticks to the roller and draws the roots out. Last spring we sowed Dutch clover, which greatly improved and thickened the bottom; and this winter we think of leaving it without sweeping or rolling, as recommended in a recent number of *THE COTTAGE GARDENER*. Last winter, quite a thick growth of moss came, and I see it is coming up again, it having perished in the hot weather. Now, I wish to know whether a top-dressing would be of any service; and if so, when; and how thickly should it be put on; and should there be any horse-munure (of which we have plenty, well rotted), be used? We are much troubled with worms, but destroy a great quantity by applying weak lime-water occasionally.

"Can you recommend a good climber, or any plant that will bear training, to contrast with *Solanum jasminoides*? I have a trellis against a wall open to the west, but well sheltered from the north and east, and close to the drawing-room windows. I wish to establish something very showy, and that would bloom during a long period.—FLORA."

[Every lawn in the three kingdoms is "burnt," more or less, by a hot summer, and no plan or device will ever be effectual against such burning; but if you consider, you will see the grass is not burnt, but scorched; and the difference between scorching every blade of grass, and cutting them off with a scythe, or mowing machine is, really, very little indeed; the difference is only this, that after the machine the grass springs up in a week, while, after scorching, it does not come till after the next rain, but it will come at last. But the great use of burnt lawns, like the *comfortability* of mossy lawns, has been overlooked till very recently. Without moss, lawns would be the most uncomfortable places to walk on in the country; and, without it was burnt brown occasionally, the moss would get the head of us, instead of being a carpeting under foot. Your lawn is not half mossy enough yet, else the worms would not be so troublesome. Moss and

worms never flourish together for any length of time. It is not good policy to sweep worm casts in the autumn, although gardeners must do so for the sake of appearances. The better way is to leave them till February. Then, in *dry weather*, to dress the lawn, or that part of it, with very fine coal-ashes and nothing else; but the ashes over the worms may be one-inch thick, and where no worms are, half-an-inch will do. Then, with a bush-harrow run over the surface repeatedly, until the worm-casts and the ashes are thoroughly mixed, and half-fixed into and among the grass. If clover-seeds or grass-seeds are wanted, sow them *over* the ashes and before the bush-harrowing. Never put rotten-dung on lawns, it does a great deal more harm than good, by encouraging worms and by making a patchy-like surface, owing to the impossibility of putting it on of equal strength and thickness. The right time to hunt and kill worms is from the middle of April to the end of May; clear lime-water, as strong as the strongest lime can make it, is the only safe way to kill worms, and it never hurts grass.

Recollect that the *Solanum jasminoides* is not perfectly hardy. It requires some protection in hard winters; and to match it in that respect, and in every other respect, including your own good taste, plant a strong *Ceanothus azureus*, and train it like a Peach-tree.]

TIME FOR CUTTING SCIONS OR GRAFTS.—IMP, AS A NAME FOR A GRAFT.—IMPROVING WATER FOR MAKING TEA.

"Will you inform me the proper time to cut imps, or scions, for grafting Apples and Pears? Is it good practice to cut them now, and put them in the soil; or to let them remain on the trees until grafting time? There is one disadvantage in my case, which is, that the trees at my residence, from whence I shall take the scions, being upon lighter soil, throw up their sap a week or more days before those at my farm, on which the stocks to be grafted are grown,—these being on a stiff clay marl. Should there be any of last year's wood cut to the scion, or should all be of this year's growth? What is the length the scion should be?"

"Can you inform me whether carbonate of soda is injurious, taken twice a-day, put into a tea-pot, to extract the tea, the water being so hard. I cannot get a cup of tea without putting an extravagant quantity of tea, or as much carbonate of soda as will lie on a sixpence. I have used a little pearl-ash, a less quantity of that will do. I am compelled to use something.—GRAFT."

[As the trees from which you purpose to take grafts being on a light soil, vegetate earlier in spring than those on which you intend to insert the grafts, you should, by all means, take off the grafts now, and bury them two-thirds of their length in the ground on the north side of a hedge or wall. There is no particular length at which they are to be cut until grafting-time, and then make your scions (all young wood), just so long as to leave about three buds above the point of union. In what part of the country is "imp" used, to designate a scion; and how else is it applied? We thought it had become obsolete; although Bailey says, "Imp among gardeners, is a kind of graft to be set in a tree." There is no doubt that it is a derivation from the Anglo-Saxon *impan*, to graft, to plant. Mr. Stevens, in a note to Pistol's calling the king a "most royal *imp* of fame,"—*Henry IV.*, part ii., act 5, scene 5,—says, that "an *imp* is a shoot, in its primitive sense, but means a son in Shakspeare." *Imp* and *impon*, are still used for graft and grafting in some parts of Wales, we believe.

The quantity of carbonate of soda you employ to soften the water for tea-brewing cannot be injurious, for its efficacy depends upon its decomposing the gypsum (sulphate of lime) in the water you employ. By that decomposition it becomes sulphate of soda, or glauber salt, the well-known aperient; but the quantity is too small to be influential in that way.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

HANTS (SOUTH). 14th and 15th January, at Fareham. Secs. James James, Esq., Fareham. Entries close December 31st, 1855.

LIVERPOOL. 16th, 17th, and 18th of January. Sec. W. C. Worrall, Esq., 6, Lower Castle Street. Entries close December 24th.

PRESTON AND NORTH LANCASHIRE. Jan. 9th and 10th, at Preston. Secs. Messrs. Burnett, Leigh, and Hayhurst, Preston.

VALE OF AYLESBURY. January 2nd and 3rd. Secs. J. D. Muddiman, and Jas. Allen. Entries close December 20th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

THE review of a past year is always a serious thing to enter upon. The first feeling should be one of gratitude, that while so many with whom we were associated have passed away we have been preserved; and the next should be to ask ourselves whether we have redeemed the promises we made when the year we now review was bursting into existence. Our task, however, is rendered easier by our ability to answer the last question in the affirmative, so far as pledged in this pursuit.

During the first six months of the past year THE POULTRY CHRONICLE stood alone, but, spite of every effort, it was a struggle for existence; and as any approach to profit seemed to become more and more distant, it was resolved to associate it with some periodical older and more favoured by public support than itself. Hence the connection in which we now stand. These explanations become necessary before we enter upon the review of the past year.

The every-day qualities of the *Dorkings* have kept them in steady popularity, and their progress has been uninterrupted. Beauty of feather has been combined to large size, and although they have not reached the prices made by fowls a few years since, yet they always find a market, and realise sums not only sufficient to remunerate the breeder, but to incite him to exertion in producing the best specimens. These birds have frequently made from five to seven guineas each, and one cock was recently sold for fifteen pounds. It is an indication of an improving state when a large number are sold at a good, though moderate price, rather than a few at a large rate. The most preposterous opinion ever yet formed in poultry matters, *viz.*, that double combs were impure, has been quite set aside by the decisions at all the principal shows, and those who were sticklers for any particular plumage have gradually given up their notions.

The remarkably cold and late spring was so unfavourable to them, that the *Spanish chickens* have been late, and this has caused some to think this breed has not made much progress; but we shall be much deceived if the chickens we have seen do not vindicate their claims to progress in this year. Spanish pullets are things of time, so far as White Faces are concerned, and cannot reach perfection till a certain age. Unless increased size is attained, we do not see where the improvement is to come from in the adult birds. There is one thing worthy of remark in the cocks of this breed—formerly every bird had a drooping comb, but when it was known an upright one was preferable, breeders took pains, and a drooping comb is seldom met with even in numerous classes. Amateurs in every race may take a lesson from this.

We have been glad to mark improvement in the *Cochin-China* classes. If birds could speak, none would have more reason to complain than these that they were petted and really spoiled during two years, subjected to all sorts of unnatural treatment to enable them to obtain a fictitious price, and then suddenly cast aside as

worthless. Their really valuable properties were often destroyed by stimulant and flesh-making food, to increase their value. We have, then, rejoiced to see of late that good birds have made good prices, and that there was an approach to their palmy days in quality. We do not wish to revive the "mania;" but they are worthy fowls, and they deserve encouragement.

Hamburghs in all classes have "progressed," but the Spangled more than the Peneilled. Here, again, breeders have conformed to rule, and the hen-tailed coeks have almost entirely disappeared. The Golden-peneilled have made more progress than their Silver brethren. Many of the former reminded us of the splendid birds of four years since.

Poland fowls keep up their quality, but the Silver are superior to the Golden. It is for amateurs to discover the cause, and remedy it. The superiority is in every point—marking, top-knot, and size.

To praise the *Game* fowls would be to "paint the lily." We always have perfect birds of this beautiful breed, and they well deserve the numerous classes allotted to them in every exhibition. It always seems to us the *Game* breeders take more pains with their fowls than any others, and the condition in which they bring them to exhibit is worthy imitation. The truth is, most of them are lovers of their fowls, while many others are only amateurs.

Differences of opinion still exist about *Brahma Poutras*, but they have made classes everywhere, and show entries enough to maintain them. Their merits or demerits may be argued in our columns, and we shall be happy to give space for them.

Bantams are decidedly better than they were, and the introduction of *Game Fowls* reduced to this size is a pleasing variety. As a consideration of bare utility will only keep a pursuit at a certain measure, we hail the improvement in these various sorts, as White, Black, and *Game*, with much pleasure.

Turkeys have remained stationary during the year.

Not so the *Aylesbury Ducks*. We last year noted they had attained the weight of $6\frac{1}{2}$ lbs, but now we may add another pound— $7\frac{1}{2}$ lbs has been a frequent weight for prize birds.

The *Rouens* have not been behind. And here, again, it may be noticed, that as soon as it was known what were the requisite points they were immediately produced.

Geese have now been commonly brought to 17 lbs, while goslings; and from 20 to 24 lbs when full grown.

The past year, then, has been pregnant with improvement to poultry; and the increase to the amount of food produced by well-selected and proper birds, instead of the chance ones formerly kept, invests the subject with an importance it does not at first sight possess. It may be said, with truth, that the attention paid to poultry of late years has caused an addition of one-fifth to the weight of every bird; and this, spread over the whole quantity produced, would yield a result would startle even the most sanguine.

As the chief agent in bringing this about has been exhibition, it naturally leads us to this subject. There has been a great change in shows. Pieces of plate have almost everywhere superseded money as first prizes; and very handsome and valuable articles have been given for the best collections. Some small shows have been given up; but if the number were accurately calculated, we believe it would be found they had increased in 1855, owing to their junction in so many places with the Annual Agricultural Meetings. As it cannot be expected that anything shall come to perfection in a short time, it will not be surprising that in many places improvement is still possible. Progress, however, is being made; the expenses can now be calculated beforehand, and with a good committee, and di-

rect railway communication, there is little doubt of success in a populous place.

Complaints are still made, and with reason, of the want of support among the inhabitants of the towns where they are held. It may, also, be said, that in some instances exhibitors are too hard on committee-men. The latter have no profit in view; and the whole advantage, if there be any, rests with the former. We have sometimes been amused to hear a man, who, perhaps, rarely exhibits more than two or three pens, and always makes money by them, declare, that unless certain alterations were made he would not exhibit any more; when he knew that he would be the only loser if he abstained.

During this year the attempt has been made to introduce a show on a large scale in France. It was only partially successful for want of practical knowledge; but there is little doubt, that patronized and supported as it is by the Government and Society of Agriculture, it will stand in a different position in 1856.

The demand for all sorts of fancy poultry abroad has been steadily increasing.

We regret that more attention is not paid to the supply of the London market during the dear season in the spring. We suppose it is a question of time, to convince people that money is to be made by it.

And now our task draws to a close. It is said, that after an engagement at sea all quarrels previous to the battle are considered at an end; and, in gratitude that they are spared, the survivors bury all animosity and ill-feeling in oblivion. Let it be so in the poultry world;—let 1855 die with whatever ebullitions it may have seen of disappointment, anger, or ill-feeling; and let every one, while honestly reviewing himself during the past year, determine to forget anything that may have caused him pain, and to forgive freely wherever he may have felt himself injured. In this spirit, our favourite pursuit will acquire fresh strength, and its votaries increased pleasure.

Friends, Subscribers, and Contributors, we bid you hearty welcome in this our first number, and on this the first day of 1856. May the year open to you with gladness. We have tried to cater for you in these pages zealously and with impartiality towards all. We hope we have succeeded, and we believe we have from the support we have received. We shall continue to do our best. If we may use the term, we are on our trial, and we ask, satisfied with the honesty of our intentions, a verdict of approval at your hands.

It will be seen our old contributors are rallying round us, and we hope, should we be spared till the end of this year, that we shall be able to say, in carrying out the simile we used at the time, that the union between THE POULTRY CHRONICLE and THE COTTAGE GARDENER has been both happy and prosperous.

FEEDING POULTRY.

THANKS to "Tristrapodia," he has given courage to bashful writers, and speaks common sense, when he says fine writing is not necessary. I answer his appeal for the result of experiments, or the interchange of knowledge.

I had occasion to notice at Birmingham the wretched condition of some pens of fowls exhibited, and on enquiry, have, I think, discovered the cause. On seeing their runs, I found in each a vessel, in some instances a small pig-trough, in which their food was put when they were fed. The fowls had dark combs and leaden-coloured faces; and no wonder, they lead a life of undue repletion, and consequent indigestion. All poultry should have to search for food, and when found it should be only a grain or particle at a time. Nature intended them to feed in this way, and in seeking food they find many things very beneficial to them. Digestion is also greatly promoted by the grass and dirt they take up with their food.—A FOLLOWER OF TRISTRAM.

CHINESE AND POLES.

I WAS travelling in a second-class carriage to the Birmingham Show, and having observed my fellow passengers, a tall, thin man, with a white neckcloth and ample coat, which almost concealed his features, the small parts of them visible being in every way sharp; and a stout jolly-looking man, on pretty good terms with himself and the rest of the world, I was becoming drowsy, when their conversation awoke me.

Thin. Going to Birmingham?

Jolly. Yes, Sir. Great change in *Chinese*.

Thin. I hope an improvement.

Jolly. I think there is every indication of it. I hope to have proof of it before I return.

Thin. Depend very much on how long you are away.

Jolly (rather nettled). Of course it does; but you will admit, of late the tendency has been that way,

Thin. That is matter of opinion; but I confess I think the revolution taking place will tend to good.

Jolly. Yes, to those who only lately invested in them, but those who laid out their money some time since must be heavy losers.

Thin. Whenever the proper balance is disturbed there must be sufferers; but I question if the public are not gainers in the end. All these things tend to overthrow monopolies.

Jolly. I do not call that a monopoly where, although the price is high, every man can buy for his money.

Thin. I do. Monopoly makes things dear, and keeps them beyond the reach of the mass.

Jolly. Well, you can't say they are dear now. What do you think of the *Polish*?

Thin. They are altogether different; their small numbers make them an insignificant class compared to the *Chinese*; and they are so hemmed in by other and more powerful races, that they are almost in danger of being absorbed by them.

Jolly. I can't agree to that. I know the breed well.

Thin. Very likely; but you also know the *Poles* are not a distinct breed or race.

Jolly. I know they are, and few have more good qualities.

Thin. Granted; but the state of subjection in which they are kept, and have been for some time, is not without its effect on them.

Jolly. I keep mine well, they are fed three times every day, have a good grass run, and lay—

Thin. What are you talking about?

Jolly. Polish fowls.

Thin. Fowls! Good night, Sir; I spoke of men.

X.

POULTRY IN COLD WEATHER.

SEVERE weather seems to be visiting us again. Forewarned is forearmed. Do not let your fowls lose condition. Feed generously on oatmeal slaked with hot-water, and give it before it is quite cold. See that the ice is broken on their water. Save the bottoms of beer, and even wine from your table, mix it with their food. The best warmth you can provide for your feathered friends is that induced by high, but not improper feeding.—X.

POLANDS AS LAYERS.

FRIEND Boothby catches me on the hip, for asserting that the *Polands* are not good egg-producers; indeed, on referring to a November 6th number, I see it veritably printed, and my signature at the footing. Most times misconceptions arise from portions only of an article being quoted, and such has been the case here. The article was especially devoted to birds bearing confinement. Now, I apprehend this puts a new complexion on my November note, for no sort bears restriction less and resents it more, consequently, their usefulness is much curtailed; but I grant you, treat them as your Louth breeder does, and you'll find them, as summer layers (in common with all the *Poland* class), first-rate. Your correspondent although A 1 in his *Poland* breed, is not too bigoted to confess that my observations, in general,

were correct, relative to the *Andalusians*, although no one has answered my queries respecting them.—W. A.

Query.—What is a *Black Hamburg*? and what colour ought the cock to be?

TO THE PIGEON FANCY.

I SHALL be much obliged if *all* fanciers, and especially all exhibitors of Pigeons, will briefly write me their opinions on a question which it is highly important should be definitely settled. It is this—In a pen of Pigeons “to consist of four different sorts or varieties,” is it proper to put a pair of Almond Tumblers, and also a pair of Mottles, of Balbs, or of Beards? For my own part, I wish that it were proper and allowable to do so, inasmuch as we have but three fancy sorts of Pigeons at present, viz.—Pouters, Carriers, and Tumblers. Still, I entertain the gravest doubts of putting two varieties of Tumblers in a pen to consist of four different sorts. Are they not all Tumblers? just as yellow, black, red, or blue pied Pouters, are still all Pouters?

So it *might possibly* be said that Fantails, Swallows, Owls, &c., are all *toys*—and, hence, an equal objection—but I fear that the cases are hardly tantamount.

I should be especially obliged if different Pigeon Societies would entertain this question in full candour, and *write me the result*. I promise to lay the sum total of the opinions before the readers of the *Poultry Chronicle*. If a particular decision can be come to *now*—a resolution to agree to it, or otherwise, will, I am satisfied, save future differences and protests.

One pen entered for the Cup at Birmingham contained both Almond Tumblers and Mottles; had this pen been successful, objection would probably have been taken to it. It is, therefore, but due to poultry committees, that exhibitors should come to a decision amongst themselves, be it for or against, or how could the committees deal with such an objection to the award of the Cup, if made? I repeat, therefore, that the question demands the calm and honest consideration of the fancy *now*, when no one's interest is particularly compromised.—TRISTRAM SHANDY, *Post Office, Hull*.

CHAPTERS FROM THE TRISTRAPEDIA.

No. II.

THE “BRUMMAGEM” JUDGMENT OF PIGEONS.

“And laughter—holding both his sides!”—*L'Allegro*.

OH! what would I have given for my uncle Toby to have whistled Lillibullero! I have before told you, my dear readers, that, when anything particularly outrageous or ludicrous occurred in the Shandy family, no two men could be more oppositely affected thereby than were my father and my uncle Toby. My father, did anything irritate and cross his humour, would forthwith huff, and pish, and bounce about, consigning the offending object, be it what it might, to as many imps as chose to accept of it. My uncle Toby, on the other hand, invariably got rid of his exuberant mental impressions, were they grave or gay, by whistling *Lillibullero*!

By the height, &c., of the tone at which the tune was pitched, but, especially by the manner of its execution, it was quite manifest what was the nature of the offence. Had any one done a cruel, or a dirty action, the effect of his whistling was infinitely striking; for, fanciful as it may appear, I must declare to you, that it conveyed as impressive and as severe a rebuke, as if he had read a chapter of cursing out of the book of *Emulphus* himself! When, however, the matter was simply absurd, or egregiously ridiculous, the effect was irresistably comic! Yet, at the same time, 'twas so pointed, so truly satirical, that bold-faced folly herself would instantly doff her cap and bells; and the ears of shallow ignorance would tingle, as she threw aside her flimsy mask of pretension.

I say, then, what would I have given for my uncle Toby to have whistled Lillibullero at Birmingham, last week but one, when there was perpetrated the most enormously

absurd and ridiculous event that ever cast consternation into the ranks of the Pigeon fancy! I mean the award (award! poh—the *misaward*), of the special prize of a Silver Cup to.— (blush, oh! printer's devil, as thou givest thy ink for the words —) to *Fantails*, *Turbits*, and *Owls*!!

Indignation itself is mute, from its very excess, at such outrageous, such childish judgment. And yet, the very enormity of the absurdity was the most efficient cooler for one's anger; for the thing was ridiculous—'twas laughable; and, hence, I observed, that amongst all exhibitors, after the first burst of consternation, there arose laughter and merriment!

For my own part, indeed, I was greatly inclined to look on this award as a piece of rich humour—a merry satire on the exhibitor of *Fantails*; a frolicsome way of rebuking the *pretension* of such toy Pigeons to such a special prize as the Silver Cup; just as the pride of the old cobbler, in the Eastern tale, was rebuked by the pretension of making him grand Sultan for one night! It turns out, however, to be a melancholy fact.

To compare the true recognised birds of the Pigeon fancy,—Pouters, Carriers, and Tumblers, with the mere common Pigeons, or Toys, is, indeed, to compare great things with small; it is to compare diamonds with Scotch pebbles,—Australian gold with Cornwall tin,—Hyperion to Satyr. It might be a grave question, indeed, whether, under any circumstance, the special prize of a Silver Cup should be awarded to common Toys, as *Fantails* and *Turbits*. As well award a gold cup, or classical piece of plate, to a race of Donkies;—very good Donkies, and very good *Fantails*; but 'tis incongruous, or, in legal phrase, repugnant to reason and common sense.

But, let the matter be decided on its merits; though it is really humiliating to compare the noble birds of the fancy—Carriers, Pouters, and Tumblers, with the common lot of *Fantails*, *Owls*, and *Turbits*! Shades of Moore, of Girtin, and of Mayor! what would ye say to such desecration! But let it be done—let us condescend to compare the worth and the merits of one class of birds with the other; nay, let us make any sacrifice of present feeling, to prevent the recurrence of such imbecile decisions for future time.

First, as to the relative value of the two classes. It must at once be conceded that the cost, or price, of first-class Pouters, Almond Tumblers, and Carriers, is ten times greater than that of the Toys. Secondly, that, while such Toys, as *Fantails*, *Owls*, and *Turbits*, are "plentiful as blackberries," and can readily be obtained in any quantity, good specimens of Pouters and of Almond Tumblers are most difficult to be met with at all. Thirdly, that while these Toys are easily bred and reared, and, for the most part, the young ones are similar and equal to the parents, the rearing of Almond Tumblers, Pouters, and Carriers, is a matter of difficulty and much trouble, demanding the system of "shifting," with all its troubles, watching, and expense; and, what is the worst feature of all, out of twenty pairs of young birds, raised with so much painstaking, there will probably be but two or three of really first-class properties. Carriers are more certain, *but* you must keep them four years before they are fit for showing. The cause of this uncertainty in getting good birds in true fancy Pigeons, is, that like the Sebright Bantam, they are "made" birds,—obtained by the crossing and *breeding up* of different birds; and, hence, the tendency to "cry back."

Once more, it may be added, that the Carrier (styled the king of Pigeons) has a position, both classical and historical. This bird, the Pouter and the Tumbler, are, and ever have been, emphatically *the* birds of the fancy; they constitute the aristocracy of Pigeons. And, can we now permit them to be sunk to the level—nay, below the level, of mere toys!

One other *practical* point yet remains. Were the white Carriers, Almond Tumblers, and Pouters, in the splendid pen of Mr. Adkins, good birds? Yea, that they were, we have the judges' word, for "highly commended" was meted out to them; and these birds have before gained first prizes at the Birmingham Show, Anerley, &c. I question whether some of them were ever beaten. Next came the fine pen of Mr. Lingard; his Pouters, Carriers, &c., also 'highly commended;' and then Mr. Corker's pen, also

"commended." These facts do but carry with them the greater condemnation. They bear record to the judgment of being so hopelessly perverse and imbecile, that such Toy Pigeons as white *Fantails*, powdered blue *Owls*, and red *Turbits*, were preferred to "highly commended" Carriers, and Pouters, and Almond Tumblers!

Shall I, then, meet out no punishment to the judges? I shall,—yea, and that the most severe that can possibly befall them; that is, I now tell the world what it is that they have done! Let not, from henceforth, the doubtful quality of its *wares* be the nay-word against Birmingham; rather, in commemoration of this Cup award, let us say "that's Brummagem Pigeon," when we want to designate the worst of "judging!"—TRISTRAM SHANDY, *Hull*.

CHICKEN *versus* CHICKENS.

"'Tis sport to see the engineer hoist with his own petard."

It is some time since I read any article which interested me more than the elaborate one on this subject by Dr. Horner, at p. 190, and I congratulate the readers of THE COTTAGE GARDENER on the reappearance in its columns of the contributions of one who is a man of learning, a man of honour—a gentleman. The testimony that he bears to the value of my contributions I accept with "the sincerity and pleasure" with which it is offered. But with regard to the point in dispute, I am in this peculiar difficulty. Dr. Horner denies that I possess *one tittle* of knowledge of Anglo-Saxon; how, then, is it possible that I can convince him that I am right in saying *a* chick, *two* chicken? There is obviously but one mode, namely, an appeal to an authority that both recognise.

Fortunately, I have also a friend named R. G. Latham, M.A.; for is not that man *my* friend who has written books which have beguiled away many an otherwise weary hour? books which have interested, nay, I will say (spite even of Dr. Horner's assertion of my utter ignorance), books which have *instructed* me.

To this authority, then, I appeal, and from Mr. R. G. Latham's "Handbook of the English Language," Walton and Maberly, 1855, I make the following *verbatim et literatim* extract:—

"*Chickens*.—A third variety of the double inflection (en -i- s), with the additional peculiarity of the form *chicken* being used, at present, almost exclusively in the singular number, although originally it was probably the plural of *chick*. So Wallis considered it. "At olim etiam per -en vel -yn formabant pluralia; quorum pauca admodum adhuc retinemus. Ut, *an ox, a chick*, pluraliter *oxen, chicken* (sunt qui dicunt in singulari *chicken* et in pluralia *chickens*.)" Which may be thus translated:—"But formerly also they formed the plurals by -en or -yn, a few of which we even now retain as, *an ox, a chick*, plural *oxen, chicken* (some say in the singular *chicken* and plural *chickens*)." "

The assertion respecting the similitude of the moon and green cheese, is, of course, unanswerable; but for the especial benefit of those who are dogmatical on the subject, I beg to quote the following from Mr. Latham's "Elementary English Grammar for the Use of Schools," page 66, first edition: "*Plurals formed by the addition of -EN or -N*. In the present English *oxen* is the only specimen of this form in current use. In the older stages of our language the number of words in -en was much greater than at present." Then follows a list of such words, including *hosen* = hose or stockings; *bischofen* = bishops; *eldren* = elders; *uncden* = uncles, &c.

Truly the little children (query *childrens*) of this generation promise to be wiser than the literary antiquarians of the last.

This is a very pretty quarrel as it stands, and it is a pity that it should be spoiled by either party confessing themselves in the wrong; but, as usually happens in such cases, both parties are in error. By inadvertently using the words *Anglo-Saxon* instead of *EARLY ENGLISH*, I gave my opponent an advantage of which he was not slow to avail himself; but his zeal outran his discretion; and when he stated that "plurals are not formed by -en, and that neither custom nor anything else can make *chicken* into a plural," he made an

assertion that is utterly incorrect. On this matter will I, aided by *my* Mr. Latham and Wallis, enter into mortal combat with him, *his* Mr. Latham, and Mr. Wright, and, moreover, give him the whole society of antiquaries as his Bashi Bazooks.—W. B. TEGETMEIER.

THE NOTTINGHAMSHIRE POULTRY EXHIBITION.

This Poultry Show took place at Southwell, on the 19th and 20th inst., under the immediate patronage of Lord Hill, Viscount Galway, and a large proportion of the neighbouring aristocracy and gentry. It is the third meeting of this Society; and we are informed that this year the superiority of the exhibition over those of the two preceding years was most remarkably evident. The principal feature of the show was its really *useful* character; the Dorkings, Geese, and Turkey classes being quite equal in quality to those varieties as exhibited at any of our most important meetings; while the fancy poultry mustered not only meagre as to numbers, but, if we make one or two solitary exceptions, were only indifferently represented. From the exceedingly low temperature of the weather, the attendance of ladies on the first day was very limited indeed; "a *truly piercing*" north-east wind tending much to prevent them and also children from venturing to brave its severity. This leads us to make a few friendly observations, which our experience in such matters suggests may possibly be considered worthy of attention in future years. It is everywhere admitted, that one of the most important considerations to a committee of management is the realization of sufficient funds to carry an equal, or still more extended prize-list at subsequent meetings. Now, it must be evident to all that this cannot be effected unless either at the individual expense of the gentlemen forming the society, or from the surplus funds obtained by admission money. There are several reasons that may be adduced why poultry exhibitions held in summer time are more *profit-producing* than during the severities of winter. The days are infinitely longer; day-tickets by railway are then in great requisition from amateurs who may reside in somewhat distant localities, whilst the tendency in all minds to avail themselves of a summer's day excursion of pleasure is equally notorious. If, on the other hand, a snow-storm unhappily takes place about the time fixed for the exhibition, the limitation thus made upon the funds of the institution none but those parties who have been *actual* sufferers from it can sufficiently appreciate. We know numerous instances of committees who were thus suddenly deprived of the means of again holding their annual re-union, not from any fault of their own seeking, but simply from the unexpected disadvantages we have just alluded to.

At Southwell, the exhibition taking place in two very commodious tents, the severity of the cold was most extreme; but by introducing iron fire-baskets at intervals, unpleasantness from this cause was speedily removed altogether; and we cannot refrain our well-merited approval of the energetic exertions of the Committee to counteract, by every available means in their power, this unforeseen drawback on their finances. Still, however, we doubt not that the public generally were not aware of this means being resorted to for their temporary convenience, and, consequently, the amount of entrance-money was proportionably limited.

We will just give one other hint in the way of improvement on the late plans, viz., the *arrangement* of the different classes in respect of light. The Geese, Turkeys, and Ducks may be placed in the more obscure portions of a poultry show, with comparatively little injury either to the general effect of the whole, or their chances of prize-winning; on the contrary, the Game, Hamburgs (of all kinds), Polands, Spanish, Sebright Bantams, or any others of the strictly *fancy* varieties, require the *best light*, both for public inspection, and not less so for the certain and proper adjudication of the society's premiums.

We will now take a cursory glance through the different classes. The *Spanish* (both old and young) were of a quality that somewhat disappointed our anticipations—not a single pen in either class of really first-rate character competing.

The *Dorkings*, however, compensated fully for this deficiency, the whole of them being extremely good. By the prize-list we published last week it will be seen that first prizes fell to the lot of H. Smith, Esq., of the Grove, Cropwell Butler, and fully maintained the high repute of that gentleman's stock of this useful variety. The *Cochins* were not remarkable in any way, with one exception; these were the first adult prize birds, and very rarely before have we seen so excellent a pen of really well-matched "Silver Cinnamons." The White, Partridge-coloured, and Black *Cochins* were in no way remarkable; the latter being decidedly the most indifferent of the whole. *Brahmas* were represented by *one* solitary pen, in *two* classes; but these not being sufficiently worthy, the prize even to them was withheld. All the *Game* were such as we rarely meet with, the whole being very good. Among the first-prize pens, we especially noticed a very perfect pen of really "*blue Game*," a variety in themselves, but, from their excellence of character likewise, were much noticed by visitors.

We were not a little amused in these classes by the various artifices practised by the owners to improve, if possible, the general appearance of their favourites for this *particular* occasion. Not only had tweezers been sedulously employed, but "bandoline" had also been used to lay still more closely the feathers on the heads of the cocks; whilst some few parties, whose purses would not permit the expense of this costly appliance from the lady's toilet-table, were contented to use soap for the same end. We willingly admit such tactics may easily deceive the uninitiated, but with parties as experienced as the gentleman who officiated at this meeting, it proved that much prior toil and trouble were thrown away.

The *Hamburgs* were not so good as we could have desired. A pen of Golden-pencilled, however, formed a remarkable exception to this otherwise general rule. The *Cross breeds* (from which we never expect much interest) here did but little to raise our previous opinions of them as exhibition birds. Among the *Bantams* were a very excellent pen of Golden-laced, and a superior one of Silver-laced Sebrights. The Black ones were also very good indeed.

In the extra variety of Bantams, a group of the now almost extinct feather-legged and booted birds were most worthy of attention, from their singularity, and still greater hardiness of constitution. The Black-breasted Red Game Bantams were also unusually excellent. The *Ducks*, as a whole, were tolerably good, the Rouens being decidedly the worst variety. In *Turkeys* and *Geese* the Nottinghamshire Show has very rarely been excelled, the weights of some of the winning pens being most extraordinary. We feel much pleasure in recording this advancement towards perfection, on account of their widely-diffused utility, more especially at the present festive season.

A circumstance came to our knowledge at the Southwell Show, to which we (though painfully) must allude. A party, whose name we here for obvious reasons decline mentioning, had forwarded some fowls for exhibition, that, by some mischance of the *railway* officials, were delayed until so late an hour that the awards had been determined long before their entrance into the show-tent. They, of course, were placarded, "too late for competition;" their owner, immediately on being apprized of this mishap, showed symptoms of much anger and uncontrollable excitement, walked up to the unoffending birds, and actually (though mildly expostulated with by the indignant bystanders), instantly destroyed them. We forbear any further comment than the simple expression of our *own* convictions, that such reckless and unmerited cruelty could never have been practised on really superior poultry, had their infuriate owner reflected for a single instant, or viewed, as others did, the unmitigated folly of the act he perpetrated, and his consequent degradation in the estimation of every one who witnessed it.

We have, since writing the above, been informed the attendance of visitors on the *second* day of exhibition was exceedingly good; and most sincerely we congratulate the committee on this result, for the indefatigable individual exertions of each and all its members richly deserved it. Nearly three hundred pens of poultry competed, and the prizes were satisfactorily awarded by Mr. Edward Hewitt, of Spark Brook, near Birmingham.

TREDEGAR POULTRY EXHIBITION.

THIS was confined to residents in the counties of Monmouth and Glamorgan, and was held at Newport, in the former county, on the 18th of December. About seventy pens were exhibited, containing each one cock and two hens. The birds were in capital condition, and the whole seemed to give great satisfaction to all who were present.

We were, however, astonished to find that *Rose-combed Dorkings* were disqualified, and the prize withheld on the ground they were "old Sussex." This is a great mistake, and should be rectified, as there is no foundation for such a determination.

The judges were T. L. Brewer, Esq., Coalbrookdale, and Mr. Evans, Newport. Their awards were as follows:—

DORKING.—First, Mr. William Sharpe, Hewelsfield Court, *Chickens of 1855.*—First, W. C. James, Esq., Pontnewydd Works.

SPANISH.—Prize, W. C. James, Esq., Pontnewydd Works. *Chickens of 1855.*—Prize, Mr. C. H. Oliver, Newport.

GAME.—Prize, J. L. Baldwin, Esq., Chepstow. *Chickens of 1855.*—Prize, J. L. Baldwin, Esq., Chepstow.

SILVER HAMBURGS.—First, W. C. James, Esq., Pontnewydd Works. *Chickens of 1855.*—First, W. C. James, Esq., Pontnewydd Works.

DUCKS (Aylesbury).—First, W. C. James, Esq., Pontnewydd Works.

DUCKS (Rouen).—First, Mr. Knowles W. Jones, Coedkernew.

TURKEYS.—First, Mr. Knowles W. Jones, Coedkernew.

COCHIN-CHINA (Cinnamon or Buff).—First, Mr. J. Hinton, Blaina. *Chickens of 1855.*—First, Mr. J. Hinton, Blaina.

COCHIN-CHINA (White, Partridge, Black, or Grouse).—First, Mr. William Sharp, Hewelsfield Court. *Chickens of 1855.*—No entry.

GOLDEN HAMBURGS.—First, W. C. James, Esq., Pontnewydd Works. *Chickens of 1855.*—First, Charles Brew, Esq., Ponthrydyn.

WHITE-CRESTED BLACK POLANDS.—First, Mr. William Hillyard, Dumfries Place, Newport. *Chickens of 1855.*—First, Mr. William Hillyard, Dumfries Place, Newport.

GOLD OR SILVER POLANDS.—First, Mr. J. B. Roberts, Pillgwenlly. *Chickens of 1855.*—First, Mr. George Hazell, Cattle Market, Newport.

ANY OTHER DISTINCT BREED.—First, Mr. J. Hinton, Blaina. (Brahma Pootra.) *Chickens of 1855.*—First, Mr. J. Hinton, Blaina. (Brahma Pootra.)

GESE.—First, Mrs. Catharine Rees, Llanmartin.

CHIPPENHAM AGRICULTURAL SOCIETY'S POULTRY SHOW.

THIS took place at Chippenham on the 13th of December. The following were the awards:—

COCHIN-CHINA.—First, Mr. T. Eacott, Devizes. Second, Mr. Dowding, Bath.

DORKING.—First, Rev. W. Popham, Hungerford. Second, Miss J. Millward, Bath. Commended.—Rev. H. Bailey.

SPANISH.—First, Mr. W. Rowden, Calne. Second, Rev. H. G. Bailey, Swindon.

GAME.—First, Rev. H. G. Bailey. Second, Mr. J. J. Fox, Devizes.

GOLDEN-SPANGLED HAMBURGH.—First, Rev. C. Down. Second, Mr. J. J. Fox.

GOLDEN-PENCILLED HAMBURGH.—First, Mr. T. Keable, Rowde. Second, Mr. J. J. Fox.

SILVER-SPANGLED HAMBURGH.—First, Mr. B. Vick, Chippenham. Second, Mr. James Vick, Tetbury.

SILVER-PENCILLED HAMBURGH.—Second, Mr. T. Eacott.

GOLDEN-SPANGLED POLAND.—First, Mr. J. J. Fox. Second, Mr. King, Melksham.

SILVER-SPANGLED POLAND.—First, Mr. Wm. Higgins, Chippenham. Second, Mr. Reynolds, Chippenham.

BANTAMS (Gold-laced).—First, Mr. J. J. Fox.

BANTAMS (Silver-laced).—Prizes withheld.

BANTAMS (Black).—First, Mr. J. J. Fox. Second, Rev. F. P. Methuen, All Cannings.

BANTAMS (White).—First, Rev. F. P. Methuen. Second, Rev. F. P. Methuen.

GENERAL CLASS OF ANY OTHER VARIETY.—First, Mr. E. Dowding, Bath. Second, Mr. John Dark, Broughton.

CHICKENS OF 1855.—*Cochin-China.*—First, J. Neeld, Esq. Commended.—Mr. Keable. *Dorking.*—First, Miss Millward. Commended.—J. Neeld, Esq. *Spanish.*—First, Mr. E. Dowding, Bath. *Game.*—First, Mr. H. Brown, Monkton. Highly Commended.—Mr. J. J. Fox. Commended.—Mr. S. Brown.

TURKEYS.—First, Miss Millward. Second, Mr. Wheeler, Laeock.

GESE.—First, Mr. R. P. Rich, Chippenham. Second, Mr. Spackman, Charfield.

AYLESBURY DUCKS.—First, Mr. E. Dowding, Bath. Second, Mr. W. Higgins, Chippenham. Equal to second prize to Rev. Mr. Richards, Somerford. (The whole class highly commended.)

ROUEN OR LINCOLN.—First, Mr. Henry Cole, Wellow. Second, Mr. Wm. Pearce, Langley.

EXTRA STOCK.—A bounty of 10s. to Jos. Neeld, Esq., M.P.

THOMAS LYNE, Judge.

COLCHESTER POULTRY SHOW,

DEC. 27TH.

THE late hour at which the awards at Colchester were published, precludes us from being able to offer any thing like a detailed report in this week's number. We will, however, promise it in our next. At present, we will only say, it was in all respects a very first-rate exhibition. The locality was every way preferable to that of last year. The largest prize-taker was Mr. Davies, of Hounslow, who finished a successful year with matchless birds. Next came Mr. Postans, a new aspirant, who began the course, not with a spoon in his mouth, but by winning a Silver Cup. We have no hesitation in saying Mr. Fisher Hobbs may challenge the world with six *Dorking Cocks*—he cannot be beaten. Mr. Botham and the Rev. T. L. Fellowes competed for goodness of collections with Mr. Botham, and, under ordinary circumstances, both would have been successful. However hurried this notice may be, we are bound to congratulate Colchester on a model committee of *working* men, and an indefatigable and clever secretary. To them, collectively, we offer our thanks, and venture to predict to them a long career of success.

JUDGES.—Mr. G. J. Andrews, Dorchester; and Mr. J. Baily, London.

The following were the awards:—

The Colchester Cup, value Twenty Guineas; Mr H. D. Davies, Springgrove, Hounslow.

Mr W. Fisher Hobbs' Cup, value Five Guineas; Mr Richard Postans, Shelly, Suffolk.

Class 1.—DORKING (Coloured).—11. First, Mr. H. D. Davies, Hounslow. 25 and 26. Second and Third, Mr George Botham, Slough, Bucks. 14. Fourth, Mr John Faulkner, Brethby, Burton-on-Trent. Highly Commended.—13. Mrs Henry Fookes, Dorset. 28. Mr William Fisher Hobbs, Boxted. Commended.—24. Mr George Round, Colchester. 22. Mr Henry Handy, Hacheston, Suffolk. *Chickens.*—32. First, Mr Robert Loder, Crawley, Sussex. 20. Second, Mr H. D. Davies, Hounslow. 19. Third, Mr J. Frost, Parham, Woodbridge. 33. Fourth, Rev. T. L. Fellowes, Beighton Rectory, Norfolk. Highly Commended.—31. Mr Robert James, Wallington. 29. Mr R. Postans, Shelly, Suffolk. Commended.—39. Mr H. Handy, Hacheston, Suffolk. 35. Rev. J. Papillon, Lexden Rectory. (A capital class.)

Class 3.—WHITE DORKING.—4. First, Mrs Henry Fookes, Whitechurch, Dorset. 1. Second, Mr H. Lingwood, Needham Market. *Chickens.*—5 and 6. First and Second, Mrs Henry Fookes, Whitechurch, Dorset.

Class 5.—DORKING COCK.—9. First, Mr W. F. Hobbs, Boxted Lodge, Essex. 4. Second, Mrs Henry Fookes, Whitechurch, Dorset. (Highly commended the whole class.)

DORKING COCK SWEEPSTAKES A.—11. Mr H. D. Davies, Hounslow.

DORKING HEN SWEEPSTAKES B.—11. Mr H. D. Davies, Hounslow.

Class 6.—SPANISH.—6 and 5. First and Second, Mr H. D. Davies, Hounslow. 12. Third, Mr George Botham, Slough. 10. Fourth, Mr Philip P. Cother, Salisbury. Highly Commended.—1. Mr J. R. Rodbard, Bristol. *Chickens.*—8. First, Mr H. D. Davies, Hounslow. 11. Second, Mr E. H. Strange, Ampthill, Bedfordshire. 10. Third, Mr Richard Postans, Shelly, Suffolk. 7. Fourth, Mr H. D. Davies, Hounslow. Highly Commended.—2. Mr J. R. Rodbard, Bristol.

Class 8.—SPANISH COCK.—1. First, Mr H. D. Davies, Hounslow. 2. Second, Mr Richard Postans, Shelly, Suffolk. Highly Commended.—Mr Joseph Allison, Acton, Middlesex.

SPANISH COCK SWEEPSTAKES C.—6. Mr H. D. Davies, Hounslow.

SPANISH HEN SWEEPSTAKES D.—6. Mr H. D. Davies, Hounslow.

Class 9.—GAME (White and Pile).—5. First, Rev T. L. Fellowes, Beighton, Rectory, Norfolk. 2. Second, Mr T. W. Pearce, Bedford. *Chickens.*—6. First, Mr E. Muskett, Bury St. Edmund's. 4. Second, Mr S. Matthew, Stowmarket. Commended.—1. Mr T. P. Mew, Cowes, Isle of Wight.

Class 11.—GAME (Black-breasted, &c.).—1. First, Lieut. S. T. Dickens, R.N., Stoke-by-Nayland. 8. Second, Mr G. C. Adkins, Edgbaston. Highly Commended.—18. Mr J. Monsey, Norwich. 7. Mr G. Ellis, Bury St. Edmund's. Commended.—16. Mr J. M. Baker, Atherstone, Warwickshire. 17. Mr Samuel Matthew, Stowmarket. (A very good class.) *Chickens.*—19. First, Rev. T. L. Fellowes, Beighton Rectory, Norfolk. 23. Second, Mr S. Matthew, Stowmarket. Highly Commended.—22. Mr S. Matthew, Stowmarket. 13. Mr W. H. Cobb, Colchester. 7. Mr R. Taylor, Colchester. (An excellent class.)

Class 13.—GAME (Duckwings).—1. First, Mr J. R. Rodbard, Bristol. 9. Second, Mr J. Monsey, Norwich. Highly Commended.—

1. Mr C. E. King, Stoke-by-Nayland. 3. Mr T. P. Mew, Cowes, Isle of Wight. (A very good class.) *Chickens*.—4. First, Mrs Frere, Burston Rectory, Norfolk. 1. Second, Mr C. E. King, Stoke-by-Nayland. Highly Commended.—7. Mr E. H. Strange, Ampthill, Bedfordshire. 6. Mr R. Postans, Shelly, Suffolk.

Class 15.—GAME COCK.—1. First, Lieut. S. T. Dickens, R.N., Stoke-by-Nayland. 5. Second, Mr H. Woodward, Stanway.

The Judges regretted they had no more Prizes to award in these Classes.

GAME COCK SWEEPSTAKES J.—1. Lieut. S. T. Dickens, R.N., Stoke-by-Nayland.

GAME HEN SWEEPSTAKES K.—6. Mr G. Ellis, Bury St. Edmunds.

Class 16.—MALAY.—1. First, Mr F. Alexander, Reydon Grove, Suffolk. 2. Second, Mr W. Rogers, Woodbridge. *Chickens*.—4. First, Mr F. A. Philbrick, Colchester. 2. Second, Rev. T. L. Fellowes, Beighton Rectory, Norfolk.

Class 18.—GOLD-PENCILLED HAMBURGH.—2. First, Mrs Mills, Bisterne. *Chickens*.—3. First, Mrs Mills, Bisterne.

Class 20.—GOLD-SPANGLED HAMBURGH.—No competition. *Chickens*.—5. First, Rev. T. L. Fellowes, Beighton Rectory.

Class 22.—SILVER-PENCILLED HAMBURGH.—4. First, Rev. T. L. Fellowes, Beighton Rectory. *Chickens*.—9. First, Rev. T. L. Fellowes, Beighton Rectory. Highly Commended.—2. Mr T. P. Mew, Cowes, Isle of Wight. 7. Mr R. James, Wallington, Hants. 8. Mr R. James, Wallington, Hants. (An excellent class.)

Class 24.—SILVER-SPANGLED HAMBURGH.—4. First, Mr George Botham, Slough. *Chickens*.—3. First, Mr C. E. Coleridge, Eton, Bucks.

Class 26.—BLACK HAMBURGH.—2. First, Rev. T. L. Fellowes, Beighton Rectory.

HAMBURGH COCK SWEEPSTAKES L.—4. Rev. T. L. Fellowes, Beighton Rectory.

HAMBURGH HEN SWEEPSTAKES M.—6. Mr F. A. Lavender, Biddenham Beds.

Class 27.—GOLD-LACED BANTAM.—6. First, Master M. Leno, Harpenden, Herts. 7. Second, Mr S. Ridley, Clayton, Sussex. Highly Commended.—3. Mr T. P. Mew, Isle of Wight.

Class 28.—SILVER-LACED BANTAM.—3. First, Master M. Leno, Harpenden. 5. Second, Mr James Monsey, Norwich.

Class 29.—BLACK BANTAM.—8. First, Rev. P. Gurdon, Cranworth Rectory, Norfolk. 3. Second, Mr Octavius Bawtree, Abberton. Highly Commended.—1. Mr John Saxty, Colchester. 7. Mr T. P. Mew, Cowes. 10. Mr G. C. Adkins, Edgbaston. (A meritorious class.)

BANTAM COCK SWEEPSTAKES P.—3. Master M. Leno, Harpenden, Herts.

BANTAM HEN.—3. First, Mr T. P. Mew, Cowes, Isle of Wight. 7. Second, Mr G. C. Adkins, Edgbaston.

Class 31.—SHANGHAI (Buff).—11. First, Mr W. Dawson, Hopton, Yorkshire. 6. Second, Mr R. Postans, Shelly, Suffolk. Highly Commended.—2. Mr C. Punchard, Haverhill. Mr G. C. Adkins, Edgbaston. *Chickens*.—17. First, Mr Joseph Allison, Acton, Middlesex. 2. Second, Miss Christy, Broomfield, Chelmsford.

Class 33.—SHANGHAI (Brown).—4. First, Mr R. Postans, Shelly, Suffolk. Highly Commended.—2. Mr C. Punchard, Haverhill. *Chickens*.—2. First, Mr A. Fryer, Chatteris, Cambridgeshire.

Class 35.—SHANGHAI (White).—1. First, Mr W. Dawson, Hopton, Mirfield, Yorkshire. *Chickens*.—1. First, Mr J. R. Rodbard, Bristol.

Class 37.—SHANGHAI (Black).—2. First, Mrs Mills, Bisterne, Ringwood, Hants.

Class 38.—SHANGHAI (Black Chickens).—No entry.

Class 39.—SHANGHAI COCKS.—2. First, Mr C. Punchard, Haverhill.

SHANGHAI HEN SWEEPSTAKES F.—8. Mr James Ivall, Hammer-smith.

Class 40.—BRAHMA POOTRA.—1. First, Mr H. D. Davies, Hounslow. 3. Second, Mr George Botham, Slough. *Chickens*.—9. First, Mr S. T. Baker, Chelsea. 11. Second, Mr Joseph Allison, Acton, Middlesex. Highly Commended.—10. Mr George Botham, Slough.

BRAHMA POOTRA COCK SWEEPSTAKES G.—1. Mr H. D. Davies, Hounslow.

BRAHMA POOTRA HEN SWEEPSTAKES H.—10. Mr. Joseph Allison, Acton, Middlesex.

Class 42.—POLAND (Black with white crests).—5. First, Mr T. P. Edwards, Lyndhurst, Hants. 3. Second, Mr G. C. Atkins, Edgbaston. Highly Commended.—2. Mr G. C. Adkins, Edgbaston. 4. Mr T. P. Edwards, Lyndhurst, Hants.

Class 43.—POLAND (Golden).—3. First, Mr G. Botham, Slough, Bucks. 1. Second, Mrs Mills, Bisterne, Ringwood, Hants.

Class 44.—POLAND (Silver).—8. First, Mr S. T. Baker, Chelsea. 4. Second, Mr G. C. Adkins, Edgbaston. Highly Commended.—1. Mr G. E. Coleridge, Eton, Bucks. 3. Mr G. C. Adkins, Edgbaston. Commended.—2. Mr G. E. Coleridge, Eton, Bucks. 7. Mr E. H. Strange, Ampthill, Bedfordshire. (One of the best Classes ever exhibited.)

Class 45.—KENT, SUSSEX, SURREY, OR OTHER DORKING.—2. First, Mr T. Bridges, Croydon, Surrey.

Class 47.—ANY OTHER DISTINCT BREED OF FOWL.—2. First, Miss Elizabeth Watts, Hampstead. 3. Second, Mr H. D. Davies, Hounslow. 4. Third, Mr R. Postans, Shelly, Suffolk.

Class 48.—TURKEYS (Black).—3. First, Rev. T. L. Fellowes, Beighton Rectory, Norfolk. 2. Second, Miss Julia Milward, Newton St. Loe, Bath.

Class 49.—TURKEYS (Black Poults).—4. First, Rev. T. L. Fellowes, Beighton Rectory, Norfolk. 5. Second, Mr J. K. Fowler, Aylesbury. (Pen 2 disqualified in this class.)

Class 52.—TURKEYS (Grey).—2. First, Mrs Henry Fookes, Whitechurch, Dorset. 1. Second, Mr J. R. Rodbard, Bristol.

Class 53.—TURKEYS (Grey Poults).—3. First, Mr R. Postans, Shelly, Suffolk. 8. Second, Mr William Fisher Hobbs, Boxted, Essex.

TURKEY COCK SWEEPSTAKES R.—2. Mr Henry Fookes, Whitechurch, Dorset.

TURKEY HEN SWEEPSTAKES S.—2. Mr R. Josselyn, Mount Ruess, Essex.

Class 55.—PEA FOWL.—3. First, Mr F. A. Lavender, Biddenham.

Class 59.—AYLESBURY DUCKS.—5. First, Mr J. K. Fowler, Aylesbury. 3. Second, Mr H. D. Davies, Hounslow. 7. Third, Mr William Fisher Hobbs, Boxted, Essex.

AYLESBURY DRAKE SWEEPSTAKES V.—5. Mr. J. K. Fowler, Aylesbury.

AYLESBURY DUCK SWEEPSTAKES W.—8. Mr H. D. Davies, Hounslow.

Class 60.—AYLESBURY DUCKLINGS.—8. First, Mr H. D. Davies, Hounslow. 17. Second, Mr William Fisher Hobbs, Boxted, Essex. 3. Third, Mr W. P. Boghurst, Frating, Essex.

Class 61.—ROUEN DUCKS.—7. First, J. K. Fowler, Aylesbury. 3. Second, Mr T. W. Pearse, Bedford.

ROUEN DUCK SWEEPSTAKES Y.—3. Mr T. W. Pearse, Bedford.

Class 62.—ROUEN DUCKLINGS.—1. First, Mr J. R. Rodbard, Bristol. 9. Second, Mr George Botham, Slough.

Class 63.—MUSK DUCKS.—1. First, Mr George Gilbert, Old Heath Colchester.

Class 64.—EAST INDIAN DUCKS.—1. First, Mr C. Punchard, Haverhill

Class 65.—DUCKS (Any other breed).—5. and 4. First and second, Mr William Fisher Hobbs, Boxted, Essex.

Class 66.—GEESE (White).—1. First, Mr T. P. Edwards, Lyndhurst, Hants. 3. Second, Mr R. Postans, Shelly, Suffolk.

Class 67.—WHITE GOSLINGS—3 and 2. First and Second, Rev. T. L. Fellowes, Beighton Rectory, Norfolk.

Class 68.—GEESE (Grey).—1. First, Mr H. D. Davies, Hounslow. 3. Second, Mrs Henry Fookes, Whitechurch, Dorset. Highly Commended.—Mr H. D. Davies, Hounslow.

Class 69.—GREY GOSLINGS.—First, Mr John K. Fowler, Aylesbury. 4. Second, Mr R. Postans, Shelly, Suffolk.

Class 68.—GANDERS SWEEPSTAKES T.—1. Mr H. D. Davies, Hounslow.

Class 68.—GOOSE SWEEPSTAKES U.—2. Mr H. D. Davies, Hounslow.

Class 70.—SWANS.—First, Mr R. L. Dell, Earls Colne.

Class 71.—CYGNETS.—First, Mr R. L. Dell, Earls Colne.

PIGEONS.

Class 72.—4. First, Mr F. Esquilant, London. Highly Commended.—5. Mr G. C. Adkins, Edgbaston. Class 73.—4. First, Mr F. Esquilant, London. Commended.—5. Mr G. C. Adkins, Edgbaston. Class 74.—1. First, Mr J. G. Yell, Chelmsford. Commended.—4. Mr Jones Percival, Walworth, Surrey. Class 76.—3. First, Mr F. A. Lavender, Biddenham. Class 77.—2. First, Mr F. A. Lavender, Biddenham. Commended.—1. Mr G. C. Adkins, Edgbaston. Class 78.—1. First, Mr J. G. Yell, Chelmsford. Commended.—3. Mr C. W. Burningham, London. Class 79.—1. First, Mr G. C. Adkins, Edgbaston. Commended.—2. Mr F. A. Lavender, Biddenham, Beds. Class 80.—3. First, Mr James G. Yell, Chelmsford. Commended.—6. Mr G. C. Adkins, Edgbaston. Class 81.—7. First, Mr Thomas Bridges, Croydon, Surrey. (An excellent class.) Class 82.—1. First, Mr J. G. Yell, Chelmsford. Commended.—4. Mr C. W. Burningham, London. Class 83.—1. First, Mr J. G. Yell, Chelmsford. Commended.—3. Mr G. C. Adkins, Edgbaston. Class 84.—1. First, Mr W. Grave, Chelmsford. Highly Commended.—2. Mr G. C. Adkins, Edgbaston. Class 85.—2. First, Mr T. Bridges, Croydon, Surrey. Class 86.—6. First, Mr C. W. Burningham, London. (A good class.) Class 87.—7. First, Mr W. H. Simpson, Islington, Birmingham.

LONDON MARKETS.—DECEMBER 31ST.

COVENT GARDEN.

The rapid change from frost to the present humid weather has much interfered with out-door operations, and this being holiday week, we have had scarcely any markets, and consequently but little to report. *Pears* and *Apples* are quite sufficient for the demand, and prices remain about the same; supplies from the Continent are again rather heavy.

FRUIT.

Apples, kitchen, per bushel 3s. to 6s.
 „ dessert 6s. „ 10s.
 Pears 8s. „ 12s.
 Peaches, per doz. 5s. „ 8s.
 Nectarines, per doz.
 Plums, per sieve 4s. „ 8s.
 Pine-apples, per lb. 4s. „ 6s.
 Grapes, per lb. 1s. „ 6s.
 Foreign Melons, each 2s. „ 4s.
 Flgs.
 Gooseberries, per qt.
 Currants

Raspberries
 Strawberries, per pottle
 Oranges, per 100 4s. „ 10s.
 Lemons 6s. „ 12s.
 Almonds, per lb. 2s. „
 Nuts, Filberts, per 100 lbs. 50s. „ 60s.
 „ Cohs, ditto .. 60s. „ 70s.
 „ Barcelona, per bushel 20s. „ 22s.
 Nuts, Brazil, per bushel 12s. „ 14s.
 Walnuts, per 1000 .. 9s. „ 12s.
 Chestnuts per bushel 12s. „ 10s.

COVENT GARDEN—Continued.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d.
Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	4s. ,, 6s.
Broccoli per bble	1s. ,, 2s.
Savoy's	9d. ,, 1s. 6d.
Greens, per dozen	
hunches	3s. ,, 6s.
Spinach, per sieve	— ,, 4s.
Beans	—
French Beans, per	
half sieve	—
Scarlet Runners	—
Peas, per bushel	—
Carrots, per bunch	4d. ,, 6d.
Parsnips, per doz.	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt.	3s. ,, 6s.
Turnips, per bunch	— ,, 3d.
Onions, young, per	
bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per	
bundle	1s. 6d. ,, 2s. 6d.

Lettuce, Cos, per	
score	6d. ,, 1s. 6d.
Cabbage	6d. ,, 8d.
Endive, per score	1s. ,, 1s. 6d.
Celery, per bunch	8d. ,, 1s.
Radishes, Turnip, per	
dozen bunches	1s. ,, 1s. 6d.
Water Cresses, per	
dozen bunches	6d. ,, 9d.
Small Salad, per	
punnet	2d. ,, 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	8s. ,, 10s.
Sea-kale, per punnet	3s. ,, 5s.
Rhubarb, per bundle	1s. ,, 1s. 6d.
Cucumbers, each	1s. ,, 3s.
Vegetable Marrow,	
per dozen	—
Tomatoes, per punnet	1s. ,, 2s. 6d.
Mushrooms, per pot	1s. 6d. ,, 2s. 6d.

HERBS.

Basil, per bunch	4d. to 6d.
Marjoram, per bunch	6d. ,, 9d.
Fennel, per bunch	2d. ,, 3d.
Savory, per bunch	2d. ,, 3d.
Thyme, per bunch	2d. ,, 3d.
Parsley, per bunch	2d. ,, 3d.
Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, DEC. 28.—The arrivals are somewhat larger within the last few days, especially of Wheat and Flour. This morning, the trade rules very dull for Wheat, and prices are in favour of the buyer. Barley finds very little sale for any description. Oats are not pressed, but are a difficult sale. The market generally assumes quite a holiday character. No alteration in Flour.

WHEAT, Essex and Kent red, old.	—s —s —s, fine —s —s 0s
Do. ditto new	74s 79s —s, fine 81s —s —s
Do. ditto white old.	—s —s —s, fine —s —s —s
Do. ditto new	78s 87s —s, fine 88s —s —s
Foreign, red.	77s 83s —s, fine 81s 87s —s
Do. white	86s 90s —s, fine 90s 95s —s
RYE	52s 54s, fine —s —s
BARLEY, grinding	37s 39s, fine —s —s
Distilling	38s 40s, fine —s —s
Malting	41s 43s, fine 42s 44s
MALT	74s 80s, fine 80s 82s
PEAS, hog, new	42s 44s, fine —s —s
Maple	45s 47s, fine —s —s
White	51s 56s, fine —s —s
Blue	54s 56s, fine —s —s
BEANS, pigeon	54s 56s —, new 50s 52s —s
Ticks for splitting	44s 46s —, new 42s 44s —s
Harrow	52s 54s —, new 48s 52s —s
OATS, English feed	25s 25s, fine 26s 28s
Poland or brew	28s 29s, fine 29s 30s
Scotch potato	32s 33s, fine 33s 44s
Do. feed	30s 31s, fine 31s 32s
Irish potato	28s 29s, fine 30s 31s
Do. feed white	25s 27s, fine 27s 28s
Do. black	26s 27s, fine 27s 28s
Foreign feed free	24s 26s, fine 26s 28s
Poland or brew	28s 29s, fine 29s 31s
FLOUR, Town made, per sack	73s 75s 76s*, Seconds 65s 68s
Essex and Suffolk	— 59s 62s
Norfolk	— 56s 57s 0d

* This is a nominal price.

HOPS.

BOROUGH MARKET, FRIDAY, DEC. 28.—Although at this period of the year the market is generally dull, there is at present a fair demand for the best qualities of Hops, for which the currency of last week is fully maintained, and for very choice samples there is an improvement of several shillings per cwt.; inferior descriptions continue dull of sale.

HAY AND STRAW.

Clover, 1st cut per		Rowan	80s. ,, 90s.
load	110s. to 140s.	Straw, flail	30s. ,, 36s.
Do. 2nd cut	90s. ,, 130s.	Do. machine	28s. ,, 30s.
Meadow Hay	90s. ,, 130s.		

POTATO.

SOUTHWARK WATERSIDE.—DEC. 24.—The weather has been very severe, and several shipments by land carriage have suffered from frost. The demand at present is very limited. Kent and Essex Regents, 85s. to 90s.; ditto Shaws, 80s. to 0s.; York Regents, 100s. to 110s.; Lincolnshire Regents, 85s. to 100s.; Wisbeach and Cambridge Regents, 80s. to 95s.; Bedford Regents, 100s. to 0s.; ditto Shaws, 0s. to 0s.; Norfolk Regents, 80s. to 90s.; ditto Whites, 0s.; Scotch Regents (East Lothian), 90s. to 95s.; ditto (Red Mould), 100s. to 0s.; ditto (Perth and Fife), 80s. to 90s.; ditto (North Country), 80s. to 90s.; Dahlias and Rattlers, 0s.; Blues, 80s.; Orkney Reds (East Lothian), 90s.; ditto ditto (Red Mould), 95s. to 0s.; Scotch Cups (Perth and Fife), 85s. to 0s.; ditto (North Country), 75s. to 80s.; Irish Kemps and Clusters, 80s. to 0s.; ditto White Rocks, 80s. to 0s.; ditto common Whites, 75s. to 0s. per ton.

MEAT.

Beef, inferior, per		Mutton, middling	3s. 10d. to 4s. 4d.
8 lbs.	3s. 4d. to 3s. 8d.	Do. prime	4s. 6d. to 4s. 10d.
Do. middling	3s. 10d. to 4s.	Veal	3s. 10d. to 4s. 10d.
Do. prime	4s. 2d. to 4s. 4d.	Pork, large	4s. 8d. to 5s.
Mutton, inferior	3s. 4d. to 3s. 8d.	Ditto, small	4s. 4d. to 5s. 4d.

POULTRY.

The market after Christmas day, for the remaining part of the week is indescribable, unless it be summed up as "stale, flat, and unprofitable."

In the mass of goods which arrive from all quarters, some necessarily remain unsold. Few fresh things come till a week afterwards, and it is, therefore, difficult to make any correct quotations, as there is no real supply.

Cock Turkeys	12s. to 15s. each.	Hares	3s. to 6s. 0d. each.
Hen Turkeys	6s. to 8s. ,,	Wild Ducks	2s. to 2s. 3d. ,,
Large Fowls	5s. to 5s. 6s. ,,	Teal	1s. to 1s. 6d. ,,
Smaller do.	3s. to 3s. 6d. ,,	Woodcocks	3s. to 6s. 0d. ,,
Chickens	2s. to 2s. 6d. ,,	Larks	1s. 6d. to 0s. 0d. ,,
Geese	7s. to 8s. ,,	Pigeons	10d. to 1s. 0d. ,,
Pheasants	3s. 3d. to 3s. 6d. ,,	Rabbits	1s. 5d. to 0s. 0d. ,,
Partridges	2s. to 2s. 3d. ,,	Wild do.	10d. to 1s. ,,

PROVISIONS.

BUTTER.—Cwt.		CHEESE.—Cwt.	
Dorset, fine	104s. to 108s.	Cheshire, fine	70s. to 81s.
Do. middling	90s. „ 96s.	Gloucestershire, dble. .	66s. „ 76s.
Fresh, per doz. lbs. .	12s. „ 13s.	Ditto, single	74s. „ 90s.
Friesland	103s. „ 112s.	Somerset	70s. „ 76s.
Kiel	94s. „ 95s.	Wilt, loaf	63s. „ 78s.
Carlow	102s. „ 106s.	Ditto, double	72s. „ 78s.
Waterford	98s. „ 102s.	Ditto, thin	54s. „ 64s.
Cork	98s. „ 102s.	Ditto, pines	72s. „ —
Limerick	100s. „ 102s.	Berkeley, thin	62s. „ 66s.
Sligo	94s. „ 102s.		

BACON.—Cwt.		HAMS.—Cwt.	
Wiltshire, dried ..	80s. to 84s.	York, new	80s. to 90s.
Waterford	59s. ,, 62s.	Westmoreland	72s. ,, 76s.
		Irish	82s. ,, 90s.

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11½d, the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces	1s. 1d. ,, 1s. 2d.
Ditto Tegs and		Leicester fleeces	1s. ,, 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.	11d. to 1s.
Half-bred Hog-		Combing skins	10½d. to 1s. 1d.
gets	1s. 2d. to 1s. 3½d.	Flannel wool	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

MANY QUESTIONS and their answers are unavoidably postponed until next week.

NUMBERS 155, 156, 157 (T. S. C.).—You can have these numbers by sending your address, with twelve postage stamps, to Mr. Angel, COTTAGE GARDENER OFFICE, 20, Paternoster Row.

KILLING TREES.—What is known on this subject? One contends that boring a hole in the trunk, and filling it with quicksilver, or some mineral poison, will, ultimately, kill the tree. Another says, it is all *bosh*. Has any one made any experiment on which he can rely, as the matter is just now of considerable importance, though neither of the parties wish to make a legal question of it.—Z.

SPURS ON HENS (G. R.).—Spurs on hens do not disqualify them. They are common on both Game and Dorking, and it is not unusual for a *pullet* to have more spur than a cock of the same age. Spurs on fowls are as capricious as whiskers on lads.

TITLE TO ORCHARD-TREES (A Subscriber).—The heirs of the planter have no title to remuneration; nor can any one possibly in April value the crop expected in the following autumn.

ORCHARD-HOUSES (E. A. Noble).—The Orchard-houses you refer to may be seen at any time at the Nurseries of Mr. Rivers, of Sawbridgeworth.

INK FOR ZINC LABELS (D. P.).—You will find the recipe and directions in No. 287, page 510.

NAME OF PLANT (Skiddum).—We have little doubt that the dried sprig is from *Cotoneaster rotundifolia*, but cannot be certain until we have seen a fresher specimen.

LONDON: Printed by HUGH BARCLAY, Winchester High-street, in the Parish of Saint Mary Kalender; and Published for the Proprietors at THE COTTAGE GARDENER OFFICE, No. 20, Paternoster Row, in the Parish of Christ Church, City of London.—January 1, 1856.

WEEKLY CALENDAR.

D M	D W	JANUARY 8—14, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
8	Tu	Monotoma Juglandis.	30.464—30.363	48—41	S.W.	00	7 a 8	7 a 4	4 a 20	1	6 47	8
9	W	Rhagium vulgare.	30.405—30.283	50—28	W.	02	6	8	5 50	2	7 12	9
10	Th	Coccinella septem-punctata.	30.525—30.495	39—27	N.E.	00	6	10	7 23	3	7 37	10
11	F	Coccinella variabilis.	30.525—30.457	38—29	N.E.	00	5	11	8 53	4	8 2	11
12	S	Coccinella instabilis.	30.543—30.519	41—32	N.E.	00	5	12	10 20	5	8 26	12
13	SUN	1 SUNDAY AFTER EPIPHANY.	30.536—30.432	42—26	N.E.	00	4	14	11 44	6	8 49	13
14	M	Coccinella dispar.	30.468—30.434	41—19	N.E.	00	3	15	morn.	7	9 11	14

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 41.5°, and 31.1°, respectively. The greatest heat, 54°, occurred on the 12th, in 1852; and the lowest cold, 6°, on the 7th, in 1841. During the period 99 days were fine, and on 97 rain fell.

The following letter has been circulated among the remaining Fellows of the London Horticultural Society :—

“*Horticultural Society, London.*
“21, Regent Street,
“December 24th, 1855.

“The Council of the Horticultural Society, in their Circular Letter of October 23, announced to the Fellows their intention of submitting to the sanction of a General Meeting the views they might form of the most desirable manner of conducting the affairs of the Corporation, now that the Garden Exhibitions have ceased to furnish funds for the maintenance of the present Garden establishment.

“After long and anxious consideration, the Council have arrived at the conclusion, that although the means of the Society no longer permit it to maintain a great and costly Garden, yet that by some alteration in existing arrangements, and by giving the action of the Society a new direction, it may be found possible to carry out the objects of the charter with unimpaired utility. This they propose to effect by the adoption of a system of exhibition, instruction, distribution, scientific investigation, and publication embodied in the following proposals :—

“1. That in place of the Garden Exhibitions, London Exhibitions be held yearly, during the spring and autumn; and that some spacious place be hired for the purpose.

“2. That Monthly Meetings be held as heretofore in Regent Street for the despatch of business, for reading papers or for the exhibition of Horticultural produce; but that medals at those meetings be discontinued, and that on each occasion, when the formal business is over, an illustrated Lecture be delivered upon some subject of Horticultural interest, which may be afterwards made the subject of discussion by the persons present.

“That seeds be distributed as usual.

“That by means of a Collector, or otherwise, seeds and roots be obtained from foreign countries, for the purpose of distribution.

“3. That a very small Garden be maintained for the purpose of raising such seeds as may not arrive in sufficient quantity for distribution, for restoring the health of imported plants, and for experimental purposes.

“4. That a regular system of inquiry into subjects of importance connected with Horticulture throughout the kingdom be established, by means of Special Committees, whose reports will be communicated to the Monthly Meetings, and otherwise made public.

“5. That the Members of the Society be entitled to borrow books from the Library, for short periods, upon undertaking to return them uninjured.

“6. That (if the funds prove adequate) the Journal be converted into a Monthly Publication, with one coloured plate in each part; which shall not be sold, but printed solely for the use of the Fellows, and regularly transmitted by post to such of them as may specially give their address for that purpose.

“7. It also seems worthy of consideration whether, besides the Monthly Meetings and Exhibitions, a formal Course of Lectures, of an educational nature, upon Horticulture, Garden Botany, or allied subjects, might not prove useful and popular.

“8. The council are of opinion, that in order to maintain the receipts of the Society in harmony with the expenditure

which may be rendered necessary by the adoption of the foregoing suggestions, and to take due advantage of the economy which may result from others, certain alterations in the privileges and payments of Members of the Society would become indispensable.

“9. They propose that Members of the Society should, as at present, be admitted to all Exhibitions and Public Meetings, without payment, on signing their names at the entrance.

“10. But that all other persons shall be required to present a Ticket on entering.

“11. That these Tickets be issued to orders of Members of the Society at the rate of Three Shillings each for the Exhibitions, and of One Shilling each for any other Public Meetings.

“12. That Members should have the privilege of purchasing such tickets at a much lower rate if taken in certain quantities, viz, ten exhibition tickets or twenty-five ordinary tickets for a sovereign.

“13. And, inasmuch as loss has been sustained by those who have purchased Garden Exhibition tickets without being able to use them in the season for which they were issued, it is proposed that the new classes of tickets shall be available during two successive seasons.

“14. In connection with the foregoing alterations the Council propose to retain the present rate of subscription (namely, £2 2s. admission fee, and £4 4s. annually, paid retrospectively) wherever it is desired to enjoy all the privileges secured to Fellows by the Charter. All existing Life Members, old Three Guinea Members, and still older Two Guinea or One Guinea Members, would fall into this class; and by them every privilege which the Bye-laws permit would be exercised.

“15. But in order to meet the wishes of others it is contemplated to establish a class of *Subscribers*, who, upon payment of Two Guineas annually, (in advance, but without an admission fee), shall be entitled to personal free admission to the Exhibitions and Meetings, to purchase tickets at the reduced price, and to all the other privileges of Fellows, except the government of the Society, participation in the distribution of seeds and plants, and the receipt of the Journal.

“The Council, being desirous that these proposals should be maturely considered by the Society before the Special General Meeting already alluded to shall be held, and being most anxious that the said Meeting should take place at a time when as large a number of Fellows as possible can be assembled, have decided upon summoning it for Tuesday, the 5th of February next, five days after the assembling of Parliament.

“ (Signed) By order of the Council,
“JOHN LINDLEY, *Vice-Secretary.*
1856.

GENERAL MEETINGS OF THE HORTICULTURAL SOCIETY OF LONDON.

Tuesday,	February 5 (Special)	. . .	at 1 P.M.
—	February 26	. . .	} at 2 P.M.
—	March 11	. . .	
—	April 22	. . .	at 3 P.M.
Thursday,	May 1 (Anniversary)	. . .	at 1 P.M.
Tuesday,	May 27	. . .	} at 3 P.M.
—	June 24	. . .	
—	July 22	. . .	
—	Nov. 25	. . .	at 2 P.M.

Without any reservation, we record our opinion that never were proposals propounded more inefficient for the attainment of the objects desired to be secured.

Those objects are two—Relieving the Society from its overwhelming debt; and establishing the Society on a more sound and useful basis for the future. Let us examine in detail the chief proposals issued by the Council, and consider how they are likely to secure those two objects.

1. London Exhibitions are proposed to be substituted for those at Chiswick, such exhibitions to be held in some hired "place." What is meant by "place" we are left to surmise; but if an enclosed building is intended, its attractions can never compete with those of similar exhibitions at the Royal Botanic Society and at the Crystal Palace. Then, do the Council think that such exhibitions will increase the number of the Society's Fellows, or that they will render the Society more useful? If the Council do so think, they have formed a very unsound judgment, for, unquestionably, such exhibitions will do neither.

2. Will "the illustrated Lectures" have a more beneficial effect? We think not. They can, like the Exhibitions proposed, be of use chiefly to the favoured few—favoured by fortune—who can afford to be in London at a particular season. Will it increase the number of country subscribers? Will the information be better or cheaper than that published in the *Florist, Gardeners' Chronicle*, and our own pages?

3. Seeds are to be distributed "as usual." Then had they better be not distributed at all, for they were ever a source of complaint and dissatisfaction. But how are they to be obtained, since the garden is to be given up? We hope not as is proposed.

4. "By means of a Collector." This is too expensive an outlay for an Insolvent Society, and will be done much more efficiently by the private enterprise of such men as Messrs. Veitch, Henderson, and others.

The proposal, 5thly, to have a small garden for the purposes of experiment and raising seeds, &c., from such *presents* as the Society may receive, we consider very desirable.

The 8th proposal that the "Journal" be converted into a monthly publication will never be carried out, for if attempted, it would be a disgrace as well as a loss, so long as the chief officer of the Society is the editor of a rival publication. Past experience has shown that the most useful contributions went to the rival publication, and the heavy preparations into "The Journal." If the Council wish to know the degree of estimation in which the "Journal," under such circumstances, has been held by the public, they have only to enquire how many copies of it were sold annually.

Proposals 16 and 17 provide that all the present Fellows and Members go on paying as heretofore, enjoying "every privilege which the Bye-laws permit;" but that "a class of *Subscribers*" be established, who, upon payment of two guineas annually, may attend the Exhibitions and Meetings gratis, and may purchase tickets, at the rate of ten or twenty-five for a sovereign,

as the case may be; which comprises, we think, "all the other privileges of Fellows," as they are to have nothing to do with "the government of the Society," and are not to receive either seeds, or plants, or the "Journal". Now, if this proposal is carried out, it will be a signal failure. Who do the Council think will pay two guineas upon such terms? It would be cheaper to pay three shillings and one shilling to a Member for a ticket of admission to as many exhibitions and meetings as the proposed Subscriber may wish, or has the opportunity, to attend.

But how will the old Members like to go on paying *four* guineas annually, when all they will have for their extra two guineas are to be a finger in "the government of the Society, participation in the distribution of seeds and plants, and the receipt of the "Journal"?" That "Journal" will never be published; there will be no seeds or plants for years to come; and who is the man who covets to have anything to do with the present government of the Society? We should like to know so bold a man.

The other proposals on which we have not commented are either unobjectionable, or are relative to matters comparatively of indifference.

We regret to see proposals so promising of no succour to the Society emanate from its Council; and our regret is the deeper because our own opinion is sustained by the assent of many of the Society's most practical Members.

There is but one path open to the Society. It must at once pay off its debt, and surrender its Charter. It may then be remodeled upon a more popular foundation, and placed under more practical management. Then, amongst other weights will be got rid of the absurdity of a Secretary and Vice-Secretary. Some people may be under the delusion that the labours of the Secretariat are so onerous as to require two such officers, but we assure them it is not so, and that like the two footmen, if the Secretary, so far as the Society is concerned, is asked any day "What he is doing?" he must answer, "Nothing;" and if the same query is addressed to his Vice, he must reply—"I'm helping him."

THE SYSTEMATIC ARRANGEMENT OF MIXED BORDERS.

(Continued from page 214.)

ALTHOUGH I have expressed my approval of the system of planting a mixed bed, or border, on the plan which I described the week before last, that approval was only as in comparison to the usual mode in which we find this part of gardening carried out. I would not copy that exact plan for my own mixed border, either for the permanent plants, or for the annuals; and, very probably, the model border will be so altered, from year to year, as more kinds of plants are provided for it, as will bring it, in the long run, up to the very point at which I would rest satisfied with my own mixed planting; but where that point in the progress is to be found is more than I can tell at present, for I never yet saw a mixed flower-bed, or a mixed flower-border, so planted as to give one an idea of any progress at all in the

ancient art of mixed planting; neither, as I have said already, do I know of a book to which to refer to for instruction superior to that which was old and stationary when I was a boy.

That the cream of the present race of plants with which mixed borders are filled up has been introduced to our hand since that time, is true enough; but that does not alter the case one inch, as the style of planting them has not improved. There must have been some progress, however, and, in some places, a thorough revision of this system of planting, although we have no particular account of it, nor I the good fortune to have seen any such, till the other day; therefore, if for no other reason, would it not be worth "the while" of any young gardener, or amateur, who may know of any improved steps that have been taken in the mixed system, to give us a full and particular account thereof, in order to be able to say, that "I taught Mr. Beaton to plant that way; or I helped to clear his brains on that, or those points, about which he seems, now, so fond of writing." But, mark me! the bird is too old to be caught with chaff. The information sought for must be as sterling as our currency; the art of teaching a grandmother will not do for a man at my time of life, with my past experience, and my present thirst for sound practical information. Mr. Appleby, and Mr. Ferguson, and all such nurserymen as go about the country for orders and money matters, with their eyes open, must know more of the progress of the art, in any direction, than the rest of us; from each of them, therefore, let us expect a chapter on the subject. What is "Upwards and Onwards" doing now? Has he never seen a mixed bed planted differently from the old type?

But what I should like to see, more particularly, is fresh blood altogether getting into the fast current of writing about new ideas and old thoughts and practices, and that more particularly from young gardeners. All Mr. Appleby's advice will go for nothing, in the eyes of country gentlemen and fashionable ladies, if they cannot express themselves in writing with ease and common sense. A man may be clever enough to force Cucumbers out of a stone wall, but if he cannot write a plain, sensible letter to his employer, when the latter is from home, that employer will take him to be as stupid in everything else as in his first letter; and there is no "Letter-writer," or college either, from which they could learn so easily how to write out their ideas, or describe a thing, as by writing occasionally to some magazine, or book, like *THE COTTAGE GARDENER*. Hundreds of first-rate gardeners take in *THE COTTAGE GARDENER* solely for their sons and for the young men about the garden. Now, if I had a son for whom I took in *THE COTTAGE GARDENER*, the first thing I would do, would be to make him write out his ideas about anything he read in it which particularly struck him at the time. The moment he had read an article, or a whole number, would be the best time for him to write out what he thought of it. The effects of this maiden effort are not complete, however, till the effort itself has passed the ordeal of the Editor's office, and appeared next week in "our pages;" but from that day the young man is on his legs. The milky way is before him, and, at last, a fixed star appears in "our system" to guide the planters and purveyors for the rising generation.

Meantime, allow me to point out the alterations, or improvements, I would make on the model border which was described last week. I cannot see that the first row could be much improved, unless it were by having a plant of *Ranunculus amplexicaulis* at regular distances in the row, say four feet apart, and that to stand between the single and double *Snowdrop*, not next to the *Dog's-tooth Violet*, which would not show the difference of the leaves so well when all the plants were not in flower. The *Snowdrops* would be out of

bloom by the time this *Ranunculus* would be coming in—early in March—and the *Ranunculus* would carry on the bloom, in patches, to the time of the flowering of the *Dog's-tooth Violet* in April.

The next row, which is planted with *Crocuses*, cannot be improved upon by mixing any other bulb or plant along with it; at least, I think so; but it requires a great deal of consideration to plant a full row of *Crocuses* to the best advantage. You might think nothing is easier; but without making notes during one season of flowering a large collection of them, I question if five gardeners could be found equal to the task. I do not know exactly how many kinds of *Crocuses* one could buy to plant such a row; but to make any show at all, the least number should not be under twelve or fifteen kinds. We must keep to the character of the *mixed system*, although we are attempting to bring out that of the *massing*, or *bedding style*; and I am quite certain, that the nearer we come to the latter, the better and the more permanent will be the effect; but we should not shrink from the difficulty of arranging together many kinds of one family, like that of *Crocus*, in order to make a fine display for a shorter period, at the expense of poverty for a longer time to come. Blue, white, and yellow, and their shades, are all that can be made out of *Crocuses*; but on the average of seasons, some of each of the principal colours open their flowers in February, some follow them in March, and many not till April. Then, if we do not represent and embrace these three periods at exactly regular distances along the whole row, our planting is not a single step in advance of what the style was thirty years ago. In a mixed line, or row, a blue *Crocus* should not stand next to a yellow one, as we have so many white, pale white, light and deeply-streaked white ones to dispose of. The deepest blue, which is a bluish-purple, would "carry" the purest whites, that is, the clearest white, and the next clearest-streaky white should stand on each side of the deepest blue, and between it and the lightest yellow. The light blue would carry the heavy lilac, or purple-streaked white between it and the deepest yellow, which seems easy enough; but, then, which are the kinds that are thus the most marked, and which of them for the three periods of February, March, and April? Here is a difficulty which few can get over this season; and take my word for it, there are not five men in England who can plant this row properly with twenty-five kinds of *Crocuses*, or with twenty, or with twelve. The lower the number of kinds, the easier to dispose of them, of course; but say five-and-twenty kinds, and that the row is 500 yards long, that you want every yard to have its own full share of colours, *properly placed*, for the period of three months, or nearly so. Not that all the plants in one yard should be in bloom by the 1st of March, the next yard to be coming in bloom by the 1st of April, and so on with each succeeding yard, or colour, which would be hap-hazard, or a return to olden times. Then, if there is one gardener in one thousand in this country who can plant this single row of *Crocuses* properly, I do not think that I ever heard his name. Here is an admission, at the planting of the second row of a mixed border, which should make gardeners' sons prick up their ears, and fix their gaze on that quarter whence the fixed star for future guidance is expected to rise, or to be discovered for the first time.

The third row is of *Polyanthuses* and *Auriculas*; two of the former and one of the latter all the way, from end to end. Is that a better way than to have the two kinds alternately? Or, is it better to have the two as they stand in the model border, or to place some other kinds of plants along with them, but only such as are very nearly of the same habits and time of flowering as the *Polyanthus* can be admitted? How many of such plants can we procure, and what are their names? Look to the

"fixed star" again before you attempt to answer those questions. All that I can say, just now, is, that all double Primroses should be added to those already in the row, and that some of the Polyanthuses and Auriculas must be taken out of the row, and planted about the garden every season, when they are in full bloom, for the next ten years, at least, and their places will be filled up with superior kinds from the seed-beds, and with extra superiors from among the older plants, which are, by that time, big enough to be divided, or too big to stand any longer as they are. I bought one shilling's worth of Polyanthus seeds last May, from which I had nearly 300 plants; and as much of Auricula seeds, from which I had 150 plants; the former will bloom this spring, and I shall begin crossing the best kinds. The Auriculas will be too small for blooming this season; they ought to have been sown about the middle of April to come in this season. I must buy two such lots again, next spring, and after that put up with my own crossed seeds of both sorts.

If one man, or family, in every parish would follow this example, we should soon find spring flowers enough for all the beds at the Crystal Palace. I have seen whole beds of the very choicest border kinds of both the Auricula and Polyanthus, and also edgings of the latter, to all the walks in a good garden more than thirty years since.

The double yellow Auricula makes as pretty a bed as any plant I know, and the moment it is out of bloom you can remove it to a north, moist border, where all the race delight to live out during the summer months. Besides these thinnings and replacings with better varieties, this row should be taken up entirely every three or four years. The best time to do so would be towards the end of October, when a spadeful of the top soil should be thrown out and spread over the back part of the border; then the next spadeful below that to be dug over, and the top to be filled in with a good, rich compost of loam and rotten dung. Then stretch the garden line along, and plant the row as before. October is also the best month for planting little beds of either Polyanthus or Auricula, and there will be plenty of them to spare every time the row in the mixed border is renewed; but I have known them to flower just as well after being planted in February. Indeed, I have seen whole lines of edgings to new walks planted with Polyanthuses late in March, and flower as well as if they had been there for years.

The Crocus row might stand for many years without disturbing the roots, unless some stronger kinds were encroaching on the others. The best time to remove them for replanting is just as they are going out of bloom, so as to be quite sure of the sorts for the proper distribution of the colours. I have, myself, often removed all kinds of border Crocuses when in full bloom, in order the better to dispose of the colours, without the least apparent hurt to the roots or bulbs. If the other plants, with the Snowdrops, are not hurt by them, the front row might stand for ten or twelve years undisturbed.

D. BEATON.

CUCUMBERS IN POTS AND BOXES IN WINTER AND SPRING.

1. "I HAVE no manure beds. Can I not grow Cucumbers early in a hothouse?" "I have a small hothouse heated by flues, but no bed for bottom-heat. Will Cucumbers succeed in boxes or pots, placed on the flues? and which will be best—boxes or pots?" "Will Cucumbers do in large pots or tubs? I have not any tank in my heated pit; would the pot or tub do placed on the hot-water pipes? and what are the best for that purpose, for present sowing?"

These are a sample of the varied inquiries now lying before me. They who recollect what has already been said on Cucumber growing, and chiefly the contracting of the room given to the roots, will at once perceive that it is one of those plants that can be most successfully grown in pots and boxes. In fact, were I to have a Cucumber-house to furnish large supplies at an early period for the market—if I did not actually use large pots plunged above a heating-medium, I would use very narrow pits—say three feet wide—for the growing medium, and these I would separate again into divisions of from two to three feet lengthwise, so that every plant would have its own place, and any one could be cleared out, soil and altogether, when it did not please, without in the least interfering with its neighbour. As far as I recollect, the very nice Cucumber house, with a ridge-and-furrow roof, at Chatsworth, is so constructed and managed, and the success is everything that could be wished. The culture of the Cucumber, for many years, in pots and boxes, convinced me that early and continued fruitfulness were greatly promoted by limiting the space of the root-room, and that any amount of luxuriance desirable could be communicated by surface-dressings and manure-waterings. To enable me to give these surfacings with effect, and often, one of two modes, when growing in pots, was adopted—either the young plant was transferred to the fruiting pot when only about three-parts filled with soil, to afford room for frequent surfacings; or, if the pot was filled at once, zinc rings, from three to six inches deep, were fixed inside the rim of the pot, and top-dressings given as wanted. The thus earthing up the stem, covering what is called the collar of the plant, even though doing it gradually, would be injurious to plants generally, and particularly to the Melon, that, with this exception, and some others lately mentioned, may, so far as lessening root-room, be treated much as the Cucumber; but I have seldom found it injurious to the Cucumber until towards the close of the season; nay, sometimes I have had plants sown at the end of August bear during the winter, the whole of the succeeding summer, and then do good service a second winter, and onwards, and they might have been continued on if they would have served any useful purpose, farther than knowing what could be done. As a general rule, it will be found most profitable to sow at the end of August, or in September, and to allow little fruit to swell until towards December, and to replace these gradually by plants sown in January, February, and March.

They who have perused previous volumes, will at once recognise the importance of bottom-heat, especially in the cold and early months of the year, for the Cucumber. If at such periods the bottom-heat averages from 10° more than the top-heat, all the better; and the top will even bear a lower temperature uninjured, in such circumstances, than if the pot were exposed. Where the pots can be plunged in any medium so heated, it matters not much by what means, the course required is hardly different in anything from growing them over a tank heated, or over pipes in a narrow bed, divided as mentioned above.

The queries refer chiefly to circumstances where there is no regular means of bottom-heat; and to oblige the propounders, I will draw upon my recollections for the minutiae of success, when grown in such circumstances, when set on flues, pipes, kerbs of pits, and shelves at the back of the houses, so as to overhang paths, &c.

In all such cases, I should prefer the plants to be grown near the heating-medium, be it pipe or flue, until they became of some size—say a foot or more in height. I used pots, and boxes, and tubs, but *not indiscriminately*; and some very little matters respecting them may be of advantage. From the non-conducting of heat properties of the wood, comparatively little is gained by

placing boxes on pipes or flues. When once heated, however, the heat of the soil inside is very slowly parted with. When a pot is set upon a heated surface, such as a flue or pipe, or, rather, on a tile or slate, to prevent the bottom being at times too hot, the whole becomes heated by conduction, and the soil inside is heated also. But then there is a great countervailing disadvantage: as soon, or as long, as the atmosphere of the house is lower in temperature than the pot, it will freely part with its heat by radiation, and the loss of heat will farther be increased by the cooling effects of evaporation of moisture from its surface. As a general rule, therefore, I prefer pots to be set over the heating-medium, and wooden-boxes, when they are to stand exposed on kerb walls, platforms, or shelves. These may be variously modified, so as to combine the advantages without the disadvantages.

If the pot is covered loosely with a thickish cloth the loss of heat from radiation and evaporation will be greatly neutralized. If a covering of dry moss is placed on the surface of the soil the heat will be better retained. I have found it, also, of advantage to place a large pot inside of one still larger; setting the latter on the heating-medium, placing a good layer of crocks inside, setting the smaller pot level inside, and filling up the space between them with crocks until within an inch or so of the top, which was stuffed firm with moss, with a few small holes, to be opened at times for circulation. This kept the soil in a very equal temperature—considerably above the temperature of the house, more especially when the surface was covered at night with a dry non-conducting substance. I have derived the same advantages from wooden-boxes, by having their bottoms formed of zinc, with plenty of drainage above, and some small semicircular draining pipes placed upright against the sides inside, with the upper end stopped, to allow the heated air to rise freely. The same result was obtained by placing a few bars of iron across the bottom of the box, and on these placing pieces of slate or tile for a bottom. By such means the roots were generally maintained in a higher and more equal temperature than the general atmosphere of the house. After sunny days, in the case of boxes on platforms and shelves, it will be advisable to cover the soil with a dry substance to retain the heat. Even when planted in a bed with a heating-medium below, I have often noticed the advantage of placing boards, or even slates, on the surface of the bed. The latter have the advantage of absorbing heat from the sun during the day, but the disadvantage of radiating it freely at night; but the advantage seems to be greater than the countervailing evil, which is but little felt when there is a continued accession of heat from the heating-medium, and the loss would be reduced to a minimum by painting or whitewashing the slates of a whitish colour.

This mentioning of colour leads me to notice, that when Cucumbers are grown on shelves placed against the back wall of a house, and not far from its top, the wall should be of a darkish colour, so that the rays of heat from the sun may be absorbed; for if the wall is white, there is great danger that the heat and light will be so reflected as to burn the foliage. The rest of the wall may be as white as you choose, except the part immediately above the Cucumbers. Injury is frequently done in pits and frames from this cause, when steam, &c., have to bear the blame.

One inquirer is very doubtful if he can grow them in pots on a flue. For the general culture, hot-water pipes are certainly best. When very young, a flue has the advantage of giving you one end of a house hotter than the other, and by shutting in a part you may thus easily gain from 5° to 10° more than the average heat of the house. I have done very well with a good flue. I have been frequently annoyed with old ones. I have had

fine bearing plants next to destroyed by the forming and bursting through of deleterious gases, even though no chineek could be perceived. If obliged to use flues, place the drainage holes in such a manner that the water that escapes from the pots should fall beyond, instead of on the flues. Even to create a moist atmosphere, I would recommend syringing the flue but seldom, and then only when comparatively cool. It is better to have vessels of water fixed on the flue, and then the moisture will be in proportion to the heat.

The kinds best suited for this purpose are *Kenyon's Sion House*, and *Improved Kenyon*, the last being longer when true. These are all smooth Cucumbers, growing from eight to twelve, and the latter to eighteen inches long, and are very sweet and nice when not more than an inch in diameter. These are by far the best for winter and early spring. The two first-named, especially, will flourish and bear profusely in a temperature about 10° lower than will suit the generality of larger kinds. Whatever the kinds, were I an epicure in Cucumbers, I would never allow any except young ones to be cut up for my use. If longer sorts are wanted for summer, all from the breed of the old white-spined *Manchester* will answer well. One of the very best of these, for bearing and good properties, is *Hunter's Prolific*. To get these latter, however, fine, long, small-diametered specimens, the temperature should not be much below 70° at night, and 80° during the day; an average of 60° at night, and 60° to 65° and 70° during the day, will grow the *Kenyon* well, though a few degrees more will cause the fruit to swell off quicker. I have had them very good when the night temperature was frequently at from 50° to 55° — 60° may be considered a safe average. This kind is, therefore, peculiarly fitted for houses where other things are grown that do not like a high temperature.

I have mentioned the times of sowing; and, according to their wishes or their resources, our inquirers can now choose for themselves.

One other little matter about the sowing in such circumstances. I have known many fail, merely because they got plants from some one else that had been raised in a nice, sweet hotbed; and that is the easiest way for getting nice, strong plants, if the weather is at all favourable. The dry heat was too great a change. To get such plants to succeed, they must at first be kept in a very moist atmosphere, by frequent dustings from the syringe, and evaporating basins all round them, involving such niceties of application, that amateurs would be apt at first to overdo or underdo; and, as a consequence, the plants become either sickly, or go off altogether, merely from the sudden transition. I found, therefore, that the plants did better when raised where they were intended to be grown, although they did not grow so fast at first. I allude, of course, to those sown now and for the three months to come. Those sown in autumn would do anywhere under glass, and the harder they were kept at first the better. Supposing, then, I was to sow directly, in a house averaging 60° at night, the following would be an epitome of culture:—

However that house was heated, one end would be a little hotter than the other, by the pipes or flue crossing there. Shut in a part, even by means of a mat, and that will increase the temperature. Obtain a large pot, fill it more than half full with crocks, the other part with rotten leaves, or moss, &c., and place the pot on the heating-medium, and cover it over with a large bell-glass or hand-light. Sow the seeds in a four-inch or a six-inch pot, in soil rather inclined to be dry, covering them just a little—if charcoal dust is used instead of soil for covering it will be as well,—and plunge this pot in the centre of the large one, and cover with the bell-glass. In case the seeds should be old, or immature, do not water for several days, but allow the seed to absorb

moisture from the dryish soil. When you find the seeds swelling, and there is a nice heat about them, water gently, with water about 80°. If the seed is good, the seed-leaves will soon appear. Keep the plunging materials moist, and place evaporating pans on the heating-medium, and throw moisture on the paths and walls, to secure a moist atmosphere; and give a little air, by tilting the glass, to prevent the plants being drawn weak. If the roots should appear much at the surface, throw on a little warm fibry peat and charcoal, and allow them to remain in the seed-pot until the first rough leaf is as large as a silver fourpenny-bit. Shift into three or four-inch pots, and plunge in the same pot, or in another or two previously prepared for them. By-and-by give more air under the bell-glass or hand-light, and then remove it altogether, keeping the plants in a moist atmosphere by evaporating pans and frequent slight syringings. I prefer growing the plants with one stem, and not stopping until they are eighteen or twenty-four inches in length. Shift the plants again as soon as they require it, and keep them, when young, in this warm corner. When they fill six or seven-inch pots, transfer them to their fruiting pots or boxes; and if these can stand over the heating-medium before the roots take hold it will be an advantage. Take care that all fresh soil is heated before using, and that the plants do not suffer from dryness, either at the roots or about the leaves. In the early part of their growth, and the early months of the year, when much fire-heat was wanted, in addition to slight syringings during the day, I made it a point to sprinkle them before going to bed at night. When stopped, as advised, the plants soon threw out side-shoots; and these, when stopped, soon brought plenty of fruit. The general treatment afterwards had nothing particular. The soil used was chiefly rich heath-soil, with a little loam, for winter; heath-soil and fibry-loam, with a little cow-dung, for spring; and fibry-loam, leaf-mould, and cow-dung, for summer. The best surfacings were old mushroom dung and dried cow-dung. I hope these minutiae will meet the case of the inquirers.

R. FISH.

WOODS AND FORESTS.

THE NURSERY DEPARTMENT.

(Continued from page 180.)

STOCKING WITH TREES.—Excepting a few species, which I will specify hereafter, I would not recommend the private nursery-gardener to attempt raising seedlings. One reason is the trouble and expense which must be incurred in gathering, storing, cleaning, and sowing the seeds; and, on the other hand, the extreme cheapness of seedlings at the public nurseries.

The best season to procure those seedlings is from the middle of October to the end of November. The Scotch nurserymen raise, annually, millions of seedlings of almost every kind of forest-trees; but there are, also, many English nurserymen equally as enterprising and successful in that part of their business.

The ground for the reception of the seedlings being got ready, as described in my last paper, at page 180, the seedlings should be ordered in directly, if not already done. I would advise them to be two years old. Such sorts as Larch, Scotch Pine, Spruce Fir, should never be allowed to stand in the seed-beds more than two years. Oak, Ash, Elm, Beech, and Spanish Chesnut, would remove well the first year, but would take no harm if two years old, though I prefer them at the former age.

As soon as they are received they should be laid in by the heels, that is, bedded in thickly. This should be carefully done, so that the roots are well covered. If the roots have become dry during the journey from the

nursery, every row as it is laid in should have a good soaking of water, which will not only wet the roots, but will also close the soil to them, and thus keep them moist till they are planted.

Planting.—Nurserymen formerly dibbled in their seedlings, a very injudicious practice, especially with such as had spreading roots. The planter had to gather such roots together and then cram them into the hole the dibble made, and thus they were cramped and confined, and when taken up to plant in the forest the roots were so twisted together that many of them never got out of that habit, and were liable to be blown down by strong winds.

The best way is to plant all seedlings with the spade. There is then no cramming at the roots, nor trampling on the ground, as there must be if they are dibbled. The way to proceed is as follows;—having fixed upon a quarter for some sort of tree first, then stretch a line across it at one end, and open a trench across it also, just the same as if you were about to dig it. Wheel the soil to the other end of the quarter to fill up the trench at last. Then dig over one spit across the piece, chopping it fine and making it quite level and smooth; stretch the line on this row of spits, and dexterously chop the soil perpendicularly down close to the line into the trench, exactly in the same way gardeners prepare the place for an edging of Box, only deeper, if necessary. It will be necessary for seedling Oak, Chesnut, or any large-rooting seedlings, though not so deep for Larches, and such like smaller-rooted plants.

Public nurserymen plant their seedlings out much thicker, both in the rows and in the distance between the rows, than would be advisable for a private nursery. The object of keeping a private nursery is to give the plants, from the very first, more space to each, and more air. The reason for this difference is to cause the young trees to grow stouter and form more roots; therefore, plant them at least six inches apart in the row. As soon as the first row is filled dig another row of spits of earth up to them, and then tread the soil firmly down to each plant. Dig two more rows of spits, and level the soil neatly, making the surface very smooth. Then shift the line and set it fifteen inches from the first row; chop down the soil again close to the line, plant the second row the same as the first, and so proceed till all are planted.

The season for transplanting extends from November to the end of March, though it is always better for the plants if the planting can be finished in February. If, however, the winter should be long and severe, the planting will, of course, be interrupted, and then the planting will necessarily be later in the spring.

Such plants as have been got in early in the autumn, and have been exposed to very severe frost, are liable to be thrown out by such frost. In that case, as soon as the thaw has taken place, and the surface of the ground become dry, the whole of the plantings should be gone over, and all the plants that have been loosened by the frost must be trod in again, and the ground pressed close to them and made firm. This treading is, at that advanced season, of little or no injury to the ground; in fact, it helps to keep in the moisture.

The after-management is exceedingly simple. During the spring and summer the ground between the rows should be kept well hoed. Not a weed should be allowed to advance beyond the seed-leaf, and the hoeing will keep the surface mellow and open, and so prevent it balling and cracking during the hottest weather. It would be advisable, also, to go over the trees with a sharp knife in hand, and wherever a plant shows two leading shoots, one of them should be pruned off, and also any strong side-shoots should be shortened in. There is no pruning so effectual as that done when the trees are in their very infancy of growth. The wounds, then, are quickly

healed, and the constitution of the tree less injured by the pruning than at any other period of its existence.

T. APPLEBY.

(To be continued.)

WORKS TO BE PERFORMED ABOUT THE NEW YEAR.

WITH the commencement of a new year a new series of duties arises. The atmosphere usually brightens up, and though the cold be more intense in the middle of January than at any other time, still there is the cheering prospect of finer days coming. Outward vegetation, of course, cannot be expected to make any advance, but the increased sunshine has a beneficial effect on plants under glass, which are certainly improved by it, and when once the "dark days" are fairly over, there is less to fear from "damp," mildew, and the other symptoms of decay, which a long series of sunless days more or less encourages in all vegetation not in luxuriant growth, which few things are at this season.

To the kitchen-gardener the 1st of January has, also, its peculiar duties. In the open ground, the forcing of *Sea-kale* and *Rhubarb* is more easily accomplished after the turn of the days than before, and, proportionately, still more so as the season advances; the ground that is vacant, but which has either been ridged, or rough dug, will also be benefited by being again turned over, the operation being performed while the ground is so far frozen as to bear the tread of the party performing the work. Many other duties are called for at this time, which will be more mentioned in detail.

The middle and latter part of December having been more than usually severe, weather prophets have been foretelling an old-fashioned winter, as they term it; or, in other words, one like that of last year. Whether it turn out so or not, certain, however, it is, that we have had more frost before Christmas than we often have in the whole winter; consequently, where ample protection was not afforded to tender or half-tender plants they must have perished completely. Now, though the saving of a quantity of half-hardy flowering plants may be an object worth trying for, it is always better to have them killed outright early in the winter, than struggle to save them until the spring, and then for them to be carried off; concluding, therefore, that most things of a half-hardy description are completely killed, there remains no difficulty in solving the question, What is next to be done? because the total destruction out-doors renders it plain that the very utmost must be made of those kept inside, to replace them again.

In mild winters, the *Yellow shrubby Calceolarias* have often stood the frost with very little injury, and bloomed early in the season, but this season frost seems to have killed them already; consequently, I have had them taken up, and the ground put in order for other things, and I shall have to depend on the young brood for the supply of next year, which, of course, are always prepared in the autumn in the proper quantity; but as this winter's severity has, most likely, already destroyed all such things as were not properly protected, and, possibly, may have killed some things which could not well be spared; it is, therefore, advisable to consider well in time how they can be replaced.

As before observed, the destruction of tender bedding-plants is an advantage rather than otherwise, when it is complete and early in the season, as the appearance they often present for a long time, when only partially injured, is certainly not inviting. But when an unexpected frost destroys, or irreparably injures, an untied Pinus, or valuable shrub, which has been but a short time in its present position, there is some regret

then shown at not having covered it up in time. This, however, cannot be remedied after it is done, save so far as to cover it up before a thaw takes place; and let that covering be prolonged as much as possible. Usually, shrubs or trees planted in spring, not making much growth early in the season, continue to grow till late, and the imperfectly-ripened wood falls a prey to frost. In the kitchen-garden, Nature usually prepares the tender herbage there to endure a sharp frost, by preceding it with more or less of cold weather, thus gradually inuring the herbage for what is to follow; and, by an admirable arrangement, small or young plants stand the winter better than larger ones. We see Wheat and other cereals stand better when not too "flush," as the local term will have it; and in the garden, our own *Peas* and *Beans* are subject to a like law. The *Peas* which were sown the middle of November are not likely to be too forward, for some frosts at the end of the month, with the very sharp ones since, have prevented their coming up yet, and it is not likely that they will do so to take any harm from the cold. Another enemy, however, must be guarded against, which are *mice*; trapping before they do any mischief is better than trusting to it after they have begun. Should the *Peas* begin to make their appearance above ground, the best covering, in severe weather, is barley chaff, which, being light and open, is also very obnoxious to slugs and such like enemies. Coal ashes are also a good thing when free from sand, as the angular points this substance presents, when viewed through a microscope, must make it very unpleasant to these arch-depredators.

After frost has given way, and a general thaw taken place, it would be well to examine the plants that have been covered up, as the covering matter sometimes wants adjusting, but by no means take it off until some days after it is completely thawed, as the plants will not, in general, suffer so much from confinement as from a hasty exposure. Nevertheless, a gradual change may be taking place, and tender plants in frames, &c., must not be kept too long in confinement. This, likewise, applies to seedling *Radishes*, young *Potatoes*, and other things. *French Beans* we suppose to be at all times provided with a fire-heated structure in winter, which, of course, admits of their having light and air at all times.

The early part of January is also a good time to plant such things as *Garlic* and *Shallots*, when the weather is mild, but the autumn is quite as well on dry soils; covering the bulbs with soil is deep enough. Their general hardihood is such as prevents their taking much harm from cold, but they need not be planted out in very severe weather.

Another crop of *Peas* may be put in now, if not done about Christmas, and a like sowing of *Long-pod Beans* at the same time; but, in both instances, let due regard be paid to succeeding crops, as the present crop might be sown on the open square, and not on the south border, which cannot well be spared for that purpose for more than one crop; therefore, before commencing the general cropping of the season, it would be well to consider what would be best for the general welfare of the whole, giving, at the same time, due attention to the changes of cropping one year after another, which have been recommended in *THE COTTAGE GARDENER* at various times.

To those who still adopt the old-fashioned mode of heating a *Cucumber frame* by dung (and there are many such), the beginning of January is a very good time to begin; only, when the quantity of that fermenting article is limited, it would be as well to defer making up a frame until later, say the 1st of February; for although there is a whole month, it is questionable whether there be a week's difference in the gathering of the first fruit. So comparatively slow is the progress

of the tender plant in dull weather, and so liable to mishaps as well, that the amateur, who cannot at all times ensure constant attendance on his frame, had better delay his forcing until a later period, and the chances are that he will be as early as if he began with the year, and, what is equally pleasing, he will see his pit plants thrive much faster.

It is almost needless here observing, that after frost has given way the *walks* and *roadways* ought to be well rolled, to consolidate them, and, as far as possible, all heavy traffic on them when in a soft state avoided. The *turf*, also, might be served in the same way; but as this is not so important as the walks, it may be left alone until the last frost of the season, when it ought to have a thorough good pressing, which will be of great service to its after-welfare.

On dry, fine days, *Potatoes* may be planted in quantity, as may be wanted, providing the weather be mild and open, as this tuber takes much less harm in the ground than is generally supposed. However, as this is an important affair, I will, at an early opportunity, refer to it again; in the meantime, I would only advise their being planted on very dry soils at this season; where a stiffer soil has to be planted, let it be done in November, or wait until February or March, most likely the latter month; nevertheless, where large breadths are to plant, it would be prudent to take advantage of what fine weather there is, and put them in accordingly. The early sorts are the best, being less likely to be attacked with disease, by their arriving at maturity before disease makes its appearance. Early planting also helps to accomplish that.

When the ground has somewhat dried, after frost has left it, look over the squares of *Cabbages*, and tread or fix them carefully in the ground again. Of course, this relates to the autumn-planted ones, which, when put in late, are liable to be loose after frost. A like misfortune often befalls small *Strawberry plants*, which ought, also, to be seen to in time, as well as any other late-planted herbaceous plants, the severity of the season being likely to throw them out of ground, as well as to injure them in other respects.

J. ROBSON.

THE ONE-SHIFT SYSTEM.

Now is the season of the year to commence with the above system, and though a very bad one in the hands of the uninitiated, in the hands of the practical it is really very useful. Supposing a sufficient quantity of turf has been collected three months since, stacked up, and not disturbed, or, if not, fresh turf will do equally well, if not too adhesive, and can be got tolerably dry; chop it up roughly, and add an equal portion of pigeon's or fowl's manure; fill up your pots at least two-thirds with this mixture, and suppose you add one portion of manure to four of light soil, and mix it up similarly to the above, in sufficient quantity for the purpose of filling up the pots at least two or three inches above the edges, to allow of the whole having its own way in settling down. If this is, along with the pots with the soil, placed entire in the house intended for the plants, or placed in a warm potting-shed adjoining, in two or three days they will be in a good state to receive such plants as the following, which may be grown and trained to suit the fancy of the proprietor, to decorate his flower-garden in summer, colonades, rooms, or halls. First in the list I place my old favourite,

NIEREMBERGIA FILICAULIS, which, if treated as follows, will give no cause for grumbling. I have found a circular trellis the most suitable for training it on, say fifteen inches diameter at the top of the pots, and two feet at the top of the trellis, which ought to be at least four to five feet in height. What! *Nierembergia filicaulis* five feet in height? Yes! and nothing very wonderful either. I have grown more than one six feet in height, covering trellises nine feet in circumference, and not one of them like drawn-up flax, with

some half-dozen flowers at the top, but covered with thousands of their delicate and beautiful blossoms, and scores of less dimensions, forcibly reminding me, at the present moment, of the delicate and beautiful young women that in former times worked in coal pits, when such as the late liberal-hearted Sir Philip Durham treated them with a substantial holiday above ground. They were then to be seen hand-in-hand by the hundred, in their white dresses and blue sashes, which so well became their fair faces.

Well, supposing you have saved a sufficient number of the above plants that had been grown last summer in the open borders, say one to two feet in height, each with half-a-dozen good shoots on them, and that they are potted, the trellises placed on the pots, the shoots trained to wind round a little as they ascend, and that they are placed in a house of intermediate temperature, between that of a greenhouse and that of a stove, and plunged, if possible, in a gentle bottom-heat; but they will do very well without. The principal errors to guard against are over-watering them, and allowing more shoots to grow than are absolutely necessary to cover the dimensions you require. Be careful, also, not to allow a flower to show itself till you want them *en masse*, which you may have from the middle of May till October; and if not just so interesting as Sir Philip's day Lilies, still you will have the consolation of seeing them morning after morning, and not like the above, dancing in white in the sunshine one day, and in their dungeons and as black as the diamonds they work upon the next.

NIEREMBERGIA GRACILIS, treated in a similar way, only bearing in mind that its habits are dwarf, will repay the extra trouble.

NIEREMBERGIA INTERMEDIA is very beautiful, and succeeds well under similar treatment, only, if possible, requiring greater attention in keeping its shoots thin, and on no account allowing it to flower till it has reached the size you want. I could do nothing with it till I commenced growing it in winter. Indeed, the whole of this class flowers so profusely, that without one takes the advantage of growing them in the dull weather, they will remain dwarf, do as you like with them. I would strongly advise any one that has a desire and convenience to give the first-named of them a trial; to plant out a few, in May, on a rich border with a north aspect, to keep them from flowering, and to grow them for another season.

VERBENAS grown in this manner, on flat trellises, are also very useful for covering walls, wire fences, and decorating colonades, &c. I have known small plants, not three inches in height, in January, treated in this way, and frequently shortened in to make them bushy, cover flat trellises six feet high, by six feet in diameter, by the end of May.

RUSSELLIA JUNCÆA does beautifully, also, treated on the one-shift system.

THUNDERBIAS are another class that is worth a place in this collection. I am sorry to see so little of the old perennial variety, *coccinea*, grown, as I know few plants make so good a show at this season, when planted in a cool stove, and trained up a pillar, and not allowing any side-shoots to grow till it reaches twelve to twenty feet in height, allowing it then to droop down six to ten feet, or over an arch, &c., which, if kept regularly thinned out, will be at the present time covered with its reddish-orange flowers.

I need hardly say, *Petunias*, *Fuchsias*, *Ipomeas*, *Stephanotis floribunda*, &c., in fact, the greater part of soft-wooded plants, will luxuriate and grow amazingly under the above treatment.

Why not a few of you home-birds try a lot of *Cactuses* in this way? Do you intend to let Mr. Green go on, year after year, as he has for nearly the last twenty-five years past, clearing all before him in this class? Its more than twenty years since I commenced, with the view of shaking hands with him, but my noble employer died, and I had to succumb. There is a better field open now, and Mr. Green's plants are not larger, nor finer, than they were twenty years since; therefore, it would be very easy to excel him in size, and I do not see much difficulty in setting their buds. The greatest difficulty would be in getting their glorious flowers open to the day, for at the last hour *heat they must have*, or you lose in colour. Excellence in colour has been one of Mr. Green's first leaders to success.

As they are so well adapted for display in such a place

as the Crystal Palace, I hope the Company will come out liberally with this class. I regret to hear, from *undoubted authority*, that their great liberality last year was taken advantage of; and I hope, that in future no one will be allowed to exhibit without signing a declaration that what they offer for exhibition has been in their possession at least two months; and that after this, if imposed upon, the name of the impostor, along with the account of the transaction, will be printed in large letters, and placed where it will be seen in the building. I am sorry such as the above is necessary, but if called upon to substantiate it, I will unhesitatingly expose such dastardly conduct.—D. FERGUSON, *Stowe, Buckingham.*

CULTURE, UNDER GLASS, OF BLECHNUM BOREALE.

PERMIT me to correct an error which I perceive in No. 378 of THE COTTAGE GARDENER, in reference to the cultivation of the *Blechnum boreale*, where the writer states that "it will not thrive either in a Wardian case, or in a greenhouse." Having grown it to a great extent, I can say, confidently, that it will grow, and that, too, most luxuriantly, in a greenhouse. I have had plants of it in twenty-four sized pots, throw out eight-and-thirty fronds, fourteen of which were fertile, and it was that, and a fine plant of *Scelopendrium undulatum*, that attracted the notice of most visitors, for they were really noble plants.

I have also grown each of these very successfully in a stove temperature, and also many other hardy Ferns.

The *Asplenium ebeneum* I have grown to the length of twenty-four inches, and the *Blechnum boreale* to an equal length, in a greenhouse; and, if I am not mistaken, I have seen the *Blechnum boreale* growing very well in a small glass, or Wardian-case, in the shop front of a chemist at Sloane Square, Chelsea, but that I cannot be quite confident about, as it is some time since I saw it, and I did not take that notice which I should have done had I seen the article I have now before me. But if *Blechnum boreale* will grow in the temperature of a moist stove, why should it not grow in a moist temperature in a Wardian-case?

Considering the *Blechnum boreale* a handsome Fern for pot culture, as well as for rockwork, has induced me to make these observations, as what is stated in the article before me might prevent many from adding it to their collection of greenhouse Ferns. And why should this be rejected, when it is far handsomer than many tender specimens?—W. REEVE, *Highgate.*

[We are much obliged by this communication, and shall be still more so, if Mr. Reeve will send us for publication his mode of treating *Blechnum boreale* under glass. Soil, temperature, degree of shade, amount of ventilation, &c. We think a plant growing in a well-ventilated stove, is no proof that it will thrive in the confined air of a Wardian-case. We shall be well-pleased to find that it will succeed in both structures.—Ed. C. G.]

THE CANARY BIRD.

BREEDING MULES.

THE extreme docility of the Canary bird, and the ease with which it propagates in captivity, have induced fanciers to endeavour to obtain crosses, or hybrids, from it and other allied species, which hybrids are usually designated Mules. The most common Mules bred in this country are from Goldfinches or Grey Linnets. These Mules are considered excellent songsters, and are more valued than Canaries, on account of the difficulty and uncertainty of obtaining them; and being themselves, as a rule, unproductive, their supply is consequently uncertain, and can only be obtained with trouble. Dr. Bechstein, as before quoted, says the Serrin and Cibril Finches breed most freely with the Canary; but, as such have never come under my observation, I cannot offer any opinion on that subject. Besides the Goldfinch, and Grey or Rose Linnet, I have also bred Mules from the Greenfinch, or Green Linnet; the Siskin, or Aberdevine;

and the Redpole. I have heard of Mules being obtained from the Sparrow, Bullfinch, Chaffinch, and Yellowhammer; but such cases are exceedingly rare, because these birds, being so very different in their habits, food, and structure, are not easily induced to form matrimonial alliances with Canaries; and even in cases where this difficulty is overcome, the union is commonly abortive. I have tried all four myself, but never succeeded, except so far as to get a Chaffinch to couple with a hen Canary, which hen, however, proved barren, and I could not induce him to pair with another. I once had a Hawfinch paired with a long Belgian hen Canary; but, by some unaccountable foolishness on my part, I separated them, and he, likewise, refused to pair with any other.

My reader may ask, Of what use is it troubling one's self to obtain these unnatural or extraordinary productions? I answer, It is an amusement. The more difficult an alliance is to bring about the greater is the value set on the produce; and those who have been fortunate to produce any rare Mule would not part with it under a considerable sum. Goldfinch Mules and Linnet Mules, being comparatively easy to obtain, are not considered much more valuable than good Canaries, unless they are of some novel or elegant marking, or sing a fancy song. All other Mules are enhanced in value according to the difficulty of obtaining them.

Most breeders of Canaries have a few surplus hens, which, perhaps, they do not care to dispose of; nor are they of such excellent colouring as to induce them to procure mates for them. These, then, are often advantageously employed for mule-breeding. Most fanciers have some plan of their own: that which I consider the most successful is, in the summer to obtain a nest of young birds of the sort or sorts from which it is intended to breed. These should be brought up by hand, and kept through the winter till late in spring, where they will remain tame, as I consider it is of great importance to have them as familiar as the Canary; and I think it is much best to cage them separately, at least the cocks, so that they may be in full song, and good-tempered. A merry song-bird, who has not had his temper spoiled by being confined with others, is most likely to make favourable advances to the ladies; nor should he be put with her till the spring is so far advanced that the hen, too, is likely to be pleased with his company. Some breeders say the cock should be two years old. In this I beg to differ, as I see no reason to wait two years, having been more successful with birds one year old than when I followed the advised plan of keeping them two years before pairing them. When put up, they should be treated and fed the same as I described for breeding Canaries, only that they require more watching. Sometimes the cocks will prove kind husbands and good fathers; but more frequently they show some evil propensity, such as pulling the nest to pieces, eating the eggs, or even killing the young; so that it will, in that case, require attention to make up her nest when she is about to lay; to remove the eggs as soon as laid, substituting a bone one till all are laid, when they must be returned; and, lastly, by removing him, leaving the care of the eggs, or young ones, to the hen; but if he appears kind and attentive, he will be a great acquisition, and ought not to be disturbed.

I have been very fortunate, this season, in rearing Goldfinch and Green-Linnet Mules, and have had, also, many Grey-Linnet Mules, but, unfortunately, lost nearly all after they fed alone. I am not aware of the causes. Perhaps some breeder may be able to inform me if they require any particular treatment.

I must also plead ignorance as to the means of producing pied Goldfinch Mules. I have heard of several plans; but they have not succeeded with me. If a successful breeder of pied Mules would favour me with his manner of procedure, &c., he would much oblige.—B. P. BRENT.

NURSERYMENS' CATALOGUES.

WE studiously avoid noticing these unless they assume a form and substance elevating them above a mere list of plants. Two are now before us so elevated, and more than usually entitled to notice.

RENDLE'S PRICE CURRENT AND GARDEN DICTIONARY FOR

1856 combines, in some respects, an Almanack with lists and prices of seeds, together with characteristics and estimates of sorts, with several essays on garden subjects from the pens of first-rate gardeners.

The following will serve as a specimen of this very useful annual:—

LEEK.

Allium porrum—is of the Linnæan Class 6—Hexandria; Order 1—Monogynia; and of the Natural Order, Asphodelææ.

A perennial, a native of Switzerland, and introduced in 1502. When well grown and blanched it is of much importance for stews, soups, &c., and is excellent as a dish cooked like Sea-kale. There are but two distinct kinds which are in our list, but the London Flag is the most generally cultivated. A very rich soil is indispensable, for although they will grow in any ordinary soil, yet to attain a high degree of succulence, on which their quality depends, they must have plenty of manure. The best mode of culture is to plant them in trenches made up as for Celery, either single rows, or in what is termed the Scotch bed system; the latter mode we have practiced for years, and we soil them up like Celery. Sow in the first week of March, thinly in rows in a seed-bed, and on rich soil; in the end of May they will be ready to plant finally. In use most

per oz.
s. d.

Large Musselburg Scotch. A very large and noted variety in Scotland, and held in high estimation there 1 4

London Flag. Fine broad-leaved 0 9

SUTTON'S SPRING CATALOGUE AND AMATEUR'S GUIDE FOR 1856. This, also, is a very useful pamphlet, for it contains much information useful to the gardener and amateur.

The following is a specimen of its contents:—

BEET.

per oz.
s. d.

Sutton's Dark Red. This is the darkest, both in the root and leaves, of all the Beet in cultivation, and boils very tender 0 8

Atkins' Crimson, deep scarlet 0 6

Whyte's Black Beet, the largest sort, very dark 0 6

Silver or Sea-kale Beet, the heart and leaf-stems used 0 6

Red Castlenaudery, Sugar Beet, Spinach Beet, and others 4d. to 0 6

Beet Seed should not be sown before the last week in April, or the first week in May, as it will not germinate while the earth is cold, and if the weather happens to be mild enough to bring it up, it is in danger of being destroyed by returning frosts; or, if it escapes this danger, the roots become too large, and are not so tender as those sown later; it is also important to avoid covering the seed too deep in the earth as it will not then vegetate well.

QUERIES AND ANSWERS.

GARDENING.

TREATMENT OF CLIMBERS NEWLY-PLANTED IN A CONSERVATORY.

"I have planted in the corners of my conservatory, *Passiflora carulea*, having two stems four feet long, but no side-branches. The stems are about as thick as a crow-quill.

"*Clematis Sieboldii*, the same as above, and two-and-a-half feet high.

"*Solanum jasminoides*, also the same, but the stems rather stouter.

"And *Rhynchospermum jasminoides*, with one stem, only eighteen inches high.

"They were all turned out of small pots, full of their matted roots. Should I prune them at all? and if so, to what extent?—PILOT."

[The *Solanum jasminoides* should be left as it is; but begin to thin off some of the young growth next July, and continue to do so until growth ceases. After that to prune and thin it close every spring, in February or March, and always to thin from July to October.

Leave the *Passiflora* just as it is, but stop the first and second shoots which will come from either of the stems, when these shoots are four to six inches long, and make the principals, or leading stems, from the next lower growth. The reason for this is that at such an age the first growths of *Passifloras* are like green Asparagus, too weak for perennants, but useful in getting up the sap quickly.

Rhynchospermum is to be left as it is; but next May, if it persists in growing one leader, stop it twice or three times, to procure as many leaders, as it is not a bulky grower.

Clematis Sieboldii, also, is to be left till the top bud has started into leaf, and one or two joints have started also. This will be some time in April. Then to cut it back to near the last eye at the bottom, and for the next two years you must also cut it down to the very bottom in April, otherwise the flowers, from the thread-like stems, would give no idea of the beauty of this plant. This *Clematis* was mixed, by Mr. Beaton, with the *Passiflora* on the conservatory wall at Shrubland, and people mistook the flowers for a new *Passiflora*. The secret for getting such large flowers was the annual cutting down to the ground till the *Clematis* roots were strong enough to make equal growth with the *Passion-flower*. It flowers on the current year's growth, just like the *Passion-flower*, and the close cutting rather helps to make it bloom more from the first. Your roof will soon be filled, then recollect to bring out some of the *Solanum* and *Passiflora*, and leave them outside during the winter.]

PINES FAULTY INSIDE.

"Having had several of my Pines spotted with dark spots when cut through, though they appeared perfect and sound from the outside, I shall be obliged by a hint as to the cause. It cannot be from being over-ripe, for I always cut them rather under ripe.—A FOUR YEARS' SUBSCRIBER."

[Some sorts of Pines will ripen as you describe in December. Such sorts are not adapted for winter culture. The *Jamaica* Pine, with live roots, will not do so. Any kind of Pine ripening now will "play false," however, if the roots are injured. It matters not whether the injury be by heat or wet, or any other cause. If there must be any extreme in the dormant period, let it be extreme dryness at root, and a lower temperature both for root and leaf.]

COMPOST FOR VINE BORDER.

"I am about to make a new Vine border, and should feel obliged if Mr. Errington could tell me any compost better than that I am about to use. It is as follows:—The top spit of pasture-land, sheep-droppings, leaf-mould, and stuff from an old corner where it has been accumulating for upwards of twenty years. This stuff consists of lime rubbish and regular cleanings out from the mansion, time after time. I purpose having a concreted bottom to the border. The Vine-house is thirty-seven feet by eighteen; what width should the border be?

"I have got two thousand bedding plants in the house, and they will be there till next April. What sorts of Vines would you recommend? I should like the *Muscat of Alexandria* and the *Barbarossa*. There will be not much more fire than will keep the frost out till the bedding plants are put out. The Vines will be planted out of-doors.—X. Y., Herefordshire."

[R. Errington begs to say that the compost will be capital, provided well handled and in due proportions. Let us say two-thirds of the top-spit of pasture-soil, and the other third the old rubbish. Chop the turf coarsely; blend the whole regularly; but do not handle anything unless it be tolerably dry. Above all, whether concreted or not, take care that water can never stand below for an hour; and pray let half your border be above the level of the front walk. The kind of Vines depends on your object. *Hambro's* are always right, but *Muscats* have no business in the same house. The *Barbarossa* is good for the latest crop. Why not have a good *Muscadine* to class with *Hambro's*?

GERANIUMS NOT FLOWERING.

"I have some Unique and Scarlet Geraniums which were late, and did not flower much out-of-doors. When I took them up in November they showed knots of buds; but in a pit, and afterwards in the cold greenhouse, never above 40°, where my Heaths are, they did not blossom well. May I hope for flowers if I put them in the stove from 58° to 70°, or will they droop and die?—AMATEUR."

[The temperature was too cold to open the flowers of Geraniums well. If well rooted, they will bloom at from 45° to 50° at night, with a rise of several degrees from sunshine. Do not place them in a stove from 58° to 70°, as that will be as much the other way, though, in our practice, we have found a Scarlet Geranium a most pliant thing, keeping at 35°, and not getting drawn in spring and summer, when it had plenty of light at hotbed and stove heat.]

CULTURE OF COLEUS BLUMEI.

"I had a *Coleus Blumei*, which, being too straggling in the autumn, I cut back, and struck the cuttings. They made nice young plants, apparently, and I was much disappointed, when, after being potted off and housed in November, they gradually began to dwindle and rot off. Out of twenty-four, I have not above four left, and these are rotting off in the stems. But this is not the worst, for the old plant is turning black in the stems, and large pieces, if not the whole plant, look as if going to rot off. Can you tell me what ails the plant, and how to save it? The *Coleus* has been kept in a plant-house from 55° to 70°.—A LADY."

[Your young plants of *Coleus Blumei* have been struck too late, and so have not got sufficient strength of stem to resist the effects of dark, cold, damp weather. The old plant will die because it has been cut down too late, and has not had heat and light enough to cause it to make a fresh growth, and to heal up the wounds the knife made in cutting it down. No plant is easier to grow if properly managed. Cuttings should be struck in April, and grown in a brisk heat, with plenty of moisture in the air, using rich soil, but not too large pots. The ends of the shoots should be nipped off frequently, to cause the plants to branch out to form compact bushes. It is a fleshy, soft-wooded plant, and is very impatient of the knife and cold, and also wet dropping upon the leaves. In your case, all we can advise you is to place your young plants near the glass in the warmest part of your stove, give very moderate supplies of water during the short days, and when spring comes, repot them and grow them on. You can evidently strike them, and, therefore put in the tops when you pot the plants, and you will soon have a good stock. Old plants are not worth keeping, so do not fret because your old one is dying. A plant struck in April may be grown the same year to a great size, by frequent repotting and plenty of heat and moisture.]

CULTURE OF CHEILANTHES LENDIGERA.—WARDIAN-CASES.—ORNAMENTAL GRASSES.

"Will you be so good as to say if the *Cheilanthes lendigera* Fern will do in a Wardian-case in a room where there is a fire every day? Since I have put it in it does not look so well. Will you be so good as to say the best way to grow it? and if it will do in the case for the winter, as I have only a cold greenhouse to keep it in? I observe you generally condemn Wardian-cases, and I have now, for two years, kept several Ferns and Lycopods, looking well and healthy, in a case; and if Mr. Appleby would, therefore, give your subscribers an article on the best way of managing Wardian-cases, I am sure I, and many more of your subscribers, would be much obliged to him; for my case is admired by all my friends, even by those that are not admirers of Ferns. Will you allow me to recommend to your readers two Grasses that are pretty—the *Agrostis pulchella* and *Eragrostis elegans*. If they are well grown, I am sure they will not fail to be admired.—F. FERN."

[*Cheilanthes lendigera* is a native of the hottest parts of South America, and, therefore, it requires the heat of the stove to keep it evergreen all the year, yet it may be hardy

enough to live through the winter in a Wardian-case, situated as yours is, in a warm room; but then you may expect that it will not be evergreen but deciduous. It is such a delicate plant, and so expensive, that cultivators have been fearful of trying experiments with it to prove whether it will live through the winter in a quiescent state. Should you venture it through this winter in your case, and it should exist and come up fresh and lively in the spring, you would do a service to Fern growers to send us a report of your success.

You are quite mistaken in saying that we generally condemn Wardian-cases. On the contrary, we think them very interesting and even useful in rooms, especially as affording a recreation and amusement to many a suffering invalid. Whatever has even a momentary effect of drawing attention, for even a short space of time, from pain and sickness, is worthy of the care of the friends of persons so afflicted. The management of Wardian-cases has been frequently described in our pages in answer to correspondents, which which you must have overlooked. It is true, we have discouraged planting them with many kinds of plants, for this simple reason, that such plants will not exist long in such airless structures. Ferns and Lycopods, such as you cultivate, are the only tribes of plants that will live long in Wardian-cases. We thank you for recommending to our readers the two Grasses you name. There are many others of the Grass tribe that are equally beautiful, but the apetalous non-coloured flowers of the whole tribe will always render them objectionable as ornamental plants for the flower-garden. Grass plants have not the beautiful foliage of Ferns to compensate for their want of rich-coloured blossoms.]

LISTS OF FLOWERS IN SEASON.

"I have been gratified this morning, in common, I have no doubt, with many more of your subscribers, by reading an article in THE COTTAGE GARDENER, upon the subject of "Tender Plants Blooming in December," a subject which I ventured to suggest to your consideration some weeks ago.

"Your readers, I am sure, are much indebted to Mr. Fish for this commencement, and I confess that I am more sanguine than he appears to be as to the extent of interest and instruction such lists will command and convey. The addition of the concise hints he is kind enough to give upon the culture and treatment of the plants is very acceptable. Many readers, who might shrink, perhaps, from the trouble of scanning through the fourteen volumes of THE COTTAGE GARDENER, for the valuable information therein contained upon the several points they desire to know—though I do not say their zeal ought so to flag—will be able to turn to these lists, and see what they want in a short compass; and I venture to advise them to do what I intend to do myself,—keep a tabular list of what is to be done by them, according to their means, and the plants they wish to grow, in order to provide themselves with a succession of bloom in the several months. Thus e.g., taking the paper now before me, set down under March, "Strike *Begonia fuchsoides* cuttings for winter blooming," &c.

"I sincerely hope that Mr. Fish will continue to publish, as often as possible, similar lists, that an amateur may be getting up a stock for the time to come.—AN OLD CORRESPONDENT."

[The idea of taking notes of the work that should be done at one time, to secure future display, is an admirable one, and we hope it will be acted upon. We shall then labour with more profit.]

HEATING A BOILER BY GAS.

"My greenhouse (eighteen feet by twelve feet) is heated by two-and-a-half inch hot-water pipes, flow and return, connected to a saddle boiler, which has the furnace-door outside the greenhouse. Could the same apparatus be used with gas? I should very much prefer it, because, being my own stoker, gardener, &c., I should be less likely to get cold myself, as also to give my plants cold.—L. R. S."

[We do not know of any firm that would exchange your pipes, &c.; but if the gas could be got at all reasonably, why not place several strong jets below your boiler, instead of fire, and you would need to change nothing. Some bachelors find it cheaper to boil their coffee-pot with gas, instead of lighting a fire. We believe previous numbers contain as much as is known on heating by gas.]

IS LESS OR MORE LIGHT ADMITTED BY A RIDGE-AND-FURROW GLASS ROOF?

"Having lately had several arguments with gentlemen respecting the construction of horticultural buildings on the ridge-and-furrow system, as to whether more or less light is obtained by adopting it, I should feel greatly obliged if you, or some of your numerous readers, or correspondents, would favour me with their opinion on the subject, practically demonstrated.—JOHN PANNELL."

[We fear that the practical demonstration of this would leave the matter much as we find it. The fact is, the mere quantity of light admitted is not so much the question as the time, and the mode of its admittance. Suppose a house faces the south exactly, and is a lean-to roof. The sun strikes it most powerfully at twelve o'clock, and for some time afterwards. This is rather desirable than otherwise for some tropical fruits that demand the most intense light that the gardener can give them. Many of the plants which we cultivate under glass, though rejoicing in continued light, can hardly endure the mid-day sun without shading, and this shading encourages mere growth at the expense of ripening the wood and fruit. Now by the ridge-and-furrow system we can, to a great extent, have a subdued light at mid-day without shading, when the sun is at the brightest; and we can have a more direct, brighter light, in the morning and afternoons, than we otherwise would have were the surface of the glass upon a plane. Further than this we have not had sufficient experience, nor made a sufficiency of experiments, to enter more fully on the subject. Perhaps some of our coadjutors and correspondents will give their opinion. We shall be much obliged by their so doing.]

GROWING VINES IN POTS.

"My predecessor made preparations for growing Vines in pots, and now I am pleased to carry it out by hook or by crook. I find the canes are three years from the eye, but not very strong. Last year he allowed them only twelve-inch pots, which are much too small. Last week I took a dozen of them and shifted them into eighteen-inch pots. I was tempted to remove a quantity of the old soil from the roots as it looked very bad. What I wish to know is, will the shifting and the stirring of the roots in removing the old soil be much against them bearing a crop this year? I intend to commence the first week of January.—A CONSTANT READER."

[We have had very fair crops of Grapes in twelve-inch pots, some sixteen months from the inserting of the bud. We would, for early work, like good rods in the twelve-inch pots quite as well as those you have shifted; for if the drainage was all right, we would remove a portion of the surface-soil, and top-dress and use manure-waterings frequently. We should not at all dislike the plants you have shifted into eighteen-inch pots, but we would treat them differently—namely, we would plunge the pots in a heating-medium, and cover the pots so as to keep the roots at from 60° to 75°, while the canes were not much above 40°, ranging from that to 45°, for a month or six weeks, and then gently move the buds, after the roots have commenced vigorous action.]

HEATING A STOVE AND GREENHOUSE.

"In the spring of the year a gardener altered my greenhouse and stove, and the manner of heating them. He has put a covering all over the flues in the stove, and filled that covering with ashes for bottom-heat. Under this covering is the vacant space for a hot-air chamber, and goodness knows it is hot enough there. On the outside he made a hole,

and fixed a pipe for cold air to enter, which, he said, would drive out the hot air through the ventilators into the stove and greenhouse; but, to my great surprise, I find that the hot air comes out through the cold-air pipe quite strongly, and hardly any goes into the stove, at least not so much as it ought to do, and I notice this is worse in windy weather. Is not this against the law of nature? I think the cold air ought to prevail from the outside, and more especially as I have a bend down from the pipe to convey the cold air up. If the bend were put mouth upwards, the hot air would be more likely to ascend. Can you explain why the hot air comes out through the cold-air pipe, or advise me what to do?—J. G."

[We do not clearly understand about this "hot-air chamber." Is all the flue covered over, or only the upper part? Where is the cold-air pipe fixed? to the top of the chamber, or, as it ought to be, at the bottom? How many openings from the chamber are into the house? How many cold air drains? We once saw such a chamber with only two or three small openings, and one small pipe from the outside for the cold air to come in, and then quite as high up as the hot-air openings, and in that case, the expanded hot air came actually out at the cold air drain. It is not natural for cold air to ascend, but when the air in a chamber becomes rarified, and gets out, the cold air near the bottom will be drawn in to supply its place. We rather think, if your chamber covers all your flue, that if you made more openings near the top, and a few near the bottom of your chamber, you would have plenty of circulation in it, without the aid of your outside pipe, and there would be little danger of the heated air passing through it, if placed at the bottom of the chamber. These openings will give more heat to the house, but neither will the chamber, nor yet the plunging medium, be so hot as now, if, as we expect, the great heat is owing to there being a deficiency of outlets, and these not properly placed.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

GREAT NORTHERN. Jan, 23rd and 24th, at Doncaster. Sec. H. Moore, Esq., Doncaster.

HANTS (SOUTH). 14th and 15th January, at Fareham. Sec. James James, Esq., Fareham. Entries closed December 31st, 1855.

KENDAL. At Kendal, February 1st and 2nd. Sec. James Geldard.

LIVERPOOL. 16th, 17th, and 18th of January. Sec. W. C. Worrall, Esq., 6, Lower Castle Street. Entries closed December 24th.

PRESTON AND NORTH LANCASHIRE. Jan. 9th and 10th, at Preston. Secs. Messrs. Burnett, Leigh, and Hayhurst, Preston.

N.B.—Secretaries will oblige us by sending early copies of their lists.

COLCHESTER POULTRY SHOW.

As our visits and peregrinations now become annual to many places, we cannot help being struck with any contrast that may present itself, and there may be some of our readers to whom a notice of these things may not seem out of place. The sterner intelligence of the exhibition appeared last week in the shape of the Prize List, and our task is now to record the salient points, and to take to the show such as could not or would not go. We have always thought that railways have not yet understood their proper interest in these meetings, and we are, therefore, glad to record of the Eastern Counties, that while this show was open, return tickets were to be had at single fares, and a crowded station and long trains were the Company's fair reward.

Last year the town and its natives were in a state of profound repose, except the interruption caused by the influx of visitors, but now the sound of war has reached it, the streets were filled with Riflemen, and when the bugle was heard, and their helmets were seen, an imaginative spectator, who had just returned from visiting the noble old Castle, might fancy the town was still beleaguered by the stern Fairfax.

Last year, the effect of the show was somewhat lessened by the unfavourable nature of the building in which it was held, but now there was no room for complaint on that head. The market-house is admirably adapted for the purpose, being light and spacious, and at a small outlay it might be made so complete as to be second to none save Birmingham.

Another great advantage over the first show was, that Mr. Cook's pens were used. We have so recently recorded our opinion of them at the Cirencester Show, that it is unnecessary to go into detail; but we cannot impress too strongly on Secretaries and Committees that they are by far the best, both in appearance and for the comfort of the birds, we have ever seen; and they have not only the advantage of being secured at a fixed sum, in any number, but that sum is a very moderate one.

Considerable interest was excited, because it was the last large show of the year, and because the largest prize ever yet offered—a cup of the value of twenty guineas, was to be the reward of the owner of the best collection of Poultry. Another Cup, of the value of five guineas, was offered by Mr. Fisher Hobbs, but the competition was confined to Essex and Suffolk.

The *Dorkings* were first on the list, and the great names were these—Mr. Davies took first prize, Mr. Botham second and third, and Mr. Falkner, of Bretby, fourth. Such names as Mrs. Fookes and Mr. Fisher Hobbs were highly commended.

In chickens, Mr. Loder was first, Mr. Davies second, Mr. Frost third, and Rev. T. L. Fellowes fourth.

A few words will dismiss this part. The judges pronounced it “a capital class,” and we are sure some of the pens here shown cannot be beaten except by accident. There was a novelty at this exhibition, in the shape of sweepstakes for the best cock and best hen in every class. Mr. Davies gained both.

Mrs. Fookes took them out of four prizes for *White Dorkings*; her birds were remarkably good.

The next class was for single *Dorking Cocks*. Mr. Fisher Hobbs was first, and Mrs. Fookes second. A careful examination of this class justifies us in repeating what we hurriedly wrote last week—that no amateur in England can show six *Dorking* cocks to equal those exhibited by Mr. F. Hobbs, and that gentleman assured us he could show ten.

The *Spanish* were excellent, but we still consider the chickens backward. Mr. Davies took both first prizes, one second and a fourth. Messrs. Postans, Strange, Botham, and Cother were also successful. It was matter of remark, in these classes, that the birds were in much better condition and feather than at Birmingham. Both sweepstakes went again to Mr. Davies. Single cock prizes went to Messrs. Davies and Postans.

“We'll have a starling shall be taught to speak” about the *Game* classes, “and nothing shall he say,” but “*excellent*.”

There were not prizes enough for these beautiful birds. The high commendations of different pens, the encomiums of the Judges, “A very good class,” “An excellent class,” and their recorded regret they had not more prizes to award, must speak for their merits. It was worthy of remark, that in the whole number shown only one pen was disqualified by having the cock and hens with legs of divers colours.

Lieut. Dickins, R. N., was very successful, and took the sweepstake for the best *Game* cock.

We are bound to speak in the highest terms of a pen of *Malays*, shown by Mr. Alexander.

Mrs. Mills, of Bisterne, took both prizes for *Golden-Pencilled Hambro's*. The Rev. T. L. Fellowes did the same for *Golden Spangled*. These last were not so good as they should be; the cocks have not the white ear-lobe sufficiently developed, and the hens are too pale in ground colour.

Taken as a whole, the *Bantams* were good, especially the Black, Silver, and White.

The *Cochin-Chinas* came next in rotation, and did not lose ground, compared with Birmingham, where we were glad to note improvement. The best pen was the property of Mr. Allison, and took the first prize in chickens. Mr. Punchard showed a matchless Grouse hen: he also took the prize for the best *Cochin-China* cock in the exhibition. Mrs. Mills sent that *rara avis*, a really Black *Cochin-China* cock.

Brahma Pootras divided their honours among Messrs. Davies, Allison, and Botham. We have never seen the hen belonging to the second gentleman equalled, and he carried off the sweepstakes.

The *Polands* will call for little notice, till we come to the *Silver Spangled*, which was pronounced “one of the best

classes ever exhibited.” There were none but capital birds, and old prize takers were only commended.

Other distinct breeds were more rational than usual. Some very handsome *Calcutta Jungle Bantams*, *Rangoons*, and *Serai ta'ooks* took the three prizes. The Rev. T. L. Fellowes took both head prizes for *Black Turkeys*; Mrs. Fookes and Mr. Postans for *Grey*, followed by Messrs. Fisher Hobbs and Rodbard. These latter were much heavier than the Black, and a pen of them, which would otherwise have been successful, was disqualified, being placed in the wrong class.

The competition that has everywhere taken place between *Aylesbury Duck* breeders was as rife as ever; and Mr. Fowler maintained the honour of the good town by taking the first prize with a pen weighing 22lbs., Mr. Davies second, 21lbs., Mr. F. Hobbs third, 20lbs. Ducklings, Mr. Davies 21lbs.; Mr. F. Hobbs second, 19½lbs.; Mr. Boghurst third, 18½lbs. The *Rouen Ducks* were not so good as we have seen. Messrs. Fowler and Rodbard, Pearse and Botham, were successful. Mr. Punchard took the prizes for *Buenos Ayrean*, and Mr. F. Hobbs both prizes for other breeds.

The *White Geese* were again inferior in weight to the *Grey*. The successful of the former weighing 31½lbs., 29½lbs., 27½lbs., while the latter 38½lbs., 38¼lbs., 37lbs., and 36lbs.

The Twenty Guinea Cup went to Mr. Davies. This gentleman exhibited 16 pens, 15 only of which arrived in time for competition. With these he took 7 first prizes, 4 second, 1 fourth, 1 high commendation, and seven sweepstakes,—Nineteen prizes with fifteen pens.

Mr. Postans took Mr. F. Hobbs' prize. The exhibitors who came next in order were Messrs. Botham, Punchard, and the Rev. T. L. Fellowes.

We copy from the *Essex and West Suffolk Gazette* the following summary of prizes and prize-takers.

It is in many respects curious, as being one of the first we have seen, and also as showing the wide spread of the Poultry movement:—

	£	s.	d.
Davies, Honnslow, 20 prizes, amounting to...	20	5	0
And the Colchester Cup, value	21	0	0
Botham, Slough, 7 prizes	5	0	0
Fellowes, Beighton, Norfolk, 13.....	11	0	0
Hobbs, Boxted, Essex, 6.....	3	15	0
Postans, Shelly, Suffolk, 7	3	15	0
And a Cup, valued at	5	5	0
Fookes, Blandford, Dorset, 7 prizes	5	10	0
Baker, Chelsea, 2	2	0	0
Punchard, Haverhill, Suffolk, 2.....	2	0	0
Alison, Middlesex, 3.....	2	5	0
Edwards, Hants, 2	2	0	0
Bridges, Croydon, 2	1	7	6
Watts, Hampstead, 1	1	0	0
Milward, Somerset, 1	0	10	0
Fowler, Aylesbury, 5	4	0	0
Dawson, Yorkshire, 2 ..	2	0	0
Josselyn, Mount Bures, 1	0	15	0
Christy, Broomfield, 1.....	0	10	0
Boghurst, Frating, 1	0	5	0
Gilbert, Colchester, 1	1	0	0
Deell, Earls Colne, 2.....	2	0	0
Esquilant, London, 2	0	15	0
Ivall, Hammersmith, 1	0	15	0
Yell, Chelmsford, 5	1	17	6
Simpson, Birmingham, 1	0	7	6
Grave, Chelmsford, 1	0	7	6
Burningham, London, 1	0	7	6
Dickens, Stoke-by-Nayland, 3.....	4	5	0
Musket, Bury, 1	1	0	0
Matthew, Stowmarket, 2	1	0	0
Adkins, Warwick, 5	2	7	6
Rodbard, Bristol, 4	3	10	0
Monsey, Norwich, 2.....	1	0	0
Woodward, Stanway, 1.....	0	10	0
King, Stoke, 1	0	10	0
Frere, Kelvedon, 1	1	0	0
Mew, Isle of Wight, 1.....	1	0	0
Ellis, Bury, 1	1	0	0
Alexander, Suffolk, 1	1	0	0
Rogers, Woodbridge, 1.....	0	10	0

Philbrick, Colchester, 1	1	0	0
Mills, Hants, 4	4	10	0
Coleridge, Eton, 1	1	0	0
Lavendor, Beds, 4	2	5	0
Leno, Herts, 3	2	10	0
Ridley, Sussex, 1	0	10	0
Gurdon, Norfolk, 1	1	0	0
Bawtree, Abberton, 1	0	10	0
Faulkner, Staffordshire, 1	0	5	0
Loder, Sussex, 1	1	10	0
Frost, Woodbridge, 1	0	10	0
Lingwood, Needham Market, 1	0	10	0
Gother, Salisbury, 1	0	5	0
Strange, Bedfordshire, 1	1	0	0
Fryer, Cambridgeshire, 1	1	0	0
Pearse, Bedford, 3	1	10	0

Total amount.....£139 10 0

Total number of Prizes.....147

All the accounts were paid before the show had closed two days; and *every bird* despatched before one o'clock on Monday.

We are very happy to be able to record this.

It now only remains for us to thank the chairman and committee for their constant attention and desire to please. It would be unfair not to mention Messrs. Fisher Hobbs, Cooke (Mayor of Colchester), Saxty, Griffin, Mann, Lient. Dickens, R. N., and Mr. Boghurst. As we do not know the names of all who were zealous in the cause, we apologise for any omission.

An especial notice is the only return we can make to Mr. Warwick, who, as Secretary, has the rare talents of being everywhere, and doing everything without being in a hurry. All who had to do with the show are under obligation to him, and we are right glad to bear our testimony to the kindness we experienced at his hands.

BARTON AND NORTH LINCOLNSHIRE POULTRY SOCIETY.

THE third annual show of this Society was held in the Corn Exchange, Barton, on Friday, Dec. 21st last. Most of the classes were well filled with, for the most part, good birds. The prizes were awarded as follows:—

SPANISH.—*Fowls.*—First, Mr. D. B. Turner, Hull. Second, Mr. H. Taylor, Newland. *Chickens.*—Second, Mr. H. Taylor, Newland.

DORKING.—*Fowls.*—First, P. W. Barnard, Esq., Bigby. *Chickens.*—First, P. W. Barnard, Esq., Bigby. Second, Mr. T. Kirby, Barnethy.

COCHIN-CHINA (Buff or Cinnamon).—*Fowls.*—First, J. Mell, Esq., Hessle. Second, F. Nicholson, Esq., Wootton. *Chickens.*—First, F. Nicholson, Esq., Wootton. Second, J. Mell, Esq., Hessle.

COCHIN-CHINA (Any other variety).—*Fowls.*—First, Mr. W. Dawson, Hopton, Mirkfield. Second, Mr. B. L. Wells, Hull. *Chickens.*—First, Mr. D. B. Turner, Hull. Second, Mr. B. L. Wells, Hull.

GAME.—First, Mr. Gooseman, Grimsby. Second, Mr. G. Brice, Barton.

POLAND (Black, White-crested).—First, Mr. Geo. W. Boothby, Louth. Second, E. R. Barnard, Esq., Bigby.

POLAND (Golden).—First, Mrs. S. Doughty, Faldingworth.

POLAND (Silver).—First, Mr. Geo. W. Boothby, Louth. Second, Mr. Geo. W. Boothby, Louth.

HAMBURGH (Gold-pencilled).—First, Mr. W. Leaning, Barton. Second, Miss Burnett, Barton.

HAMBURGH (Silver-pencilled).—First, P. W. Barnard, Esq. Second, C. Smith, Esq., Caistor.

HAMBURGH (Gold-spangled).—First and Second, Mr. T. Simpson, Hull.

HAMBURGH (Silver-spangled).—First, P. W. Barnard, Esq. Second, Mrs. Odling, Baslingthorpe.

BANTAMS (Gold-laced).—First, Mr. Geo. W. Boothby. Second, Miss Burnett.

BANTAMS (Silver-laced).—First and Second, Mr. G. W. Boothby.

BANTAMS (Any other colour).—First, Mr. G. Brice. Second, Mr. Mc Lelan.

GEESE.—First, Mr. T. Burton, Barton.

DUCKS (Aylesbury).—First, P. W. Barnard, Esq. Second, W. S. Owston, Brigg.

DUCKS (Any other variety).—First, T. Marris, Esq., Ulceby. Second, Mr. R. Minto, Barton.

TURKEYS.—First, Mr. G. Leeson, Wrawby. Second, Mr. A. Moss, Barton.

ANY OTHER VARIETY OF POULTRY.—First, Mr. G. W. Boothby. (Black-crested Black Polish). Second, Mr. W. Dawson, Hopton, Mirkfield. (Serai Taook or Sultan's Fowls.)

AYLESBURY POULTRY SHOW.

THIS was held in a comfortable tent in the market-place, which was sufficiently stout to exclude air, while it admitted the grand desideratum of plenty of light. In the evening it was profusely illuminated with gas. We cannot avoid mentioning that there was much room for complaint at the supineness of townspeople and agriculturists, who appear to take little or no interest in these shows. We begin to hear, that while wheat is making from £20 to £21 per load, and other things dear in proportion, the latter will not look much to *cocks* and *hens*; when the turn comes, and the £60 or £80 per annum to be made by Poultry will be more acceptable, they will, perhaps, be induced to pick up the small nugget that now lies unheeded.

We were very glad to see that the exhibition, on its opening, was thronged by the gentry of the neighbourhood, and that the sales were very numerous; confined chiefly to the *Dorking* classes.

It was session time, and it was a curious fact, that while the show was opening, there was a man on trial for many hours for stealing two cocks. Writing *incog.*, and, therefore, braving the terrors of wigs and silk gowns, we will venture to say, that however learned they might be in the law, the counsel had neither "read up," nor been "crammed" in Poultry lore.

This show is fortunate in an energetic chairman, a small, but working committee, and two good honorary secretaries—every credit is due to them for their exertions, and the happy and friendly way in which they carry out their purpose, which, like all such undertakings, has no private object.

There were 240 pens.

As the old proverb makes the cobbler say "There is nothing like leather," so the good people of Aylesbury think there is nothing like Ducks, and they begin their catalogue with them.

If there be boasting in the proceeding it was not empty, for the first pen, belonging to Mr. Weston justified precedence—the three birds weighed 26lbs. The presence, however, of Messrs. Fowler and Weston had a prohibitory effect. Here, at the head-quarters, only seven pens competed, while last year there were thirty-six; and at other shows we have seldom less than twenty. The *Rouen* Ducks were excellent. Mr. Fowler first, as usual, and the other varieties had good specimens of every breed. There were plenty of good *Spanish*, but hardly one perfect pen. The *Dorking* was the class of the show, and excellent birds were common. We cannot give the names of all prize-takers in this notice, and the Prize List will supply them; but it would be unfair not to notice the first, belonging to the Rev. F. Thursby, which fully sustained his high reputation. The Buff *Cochins* were weak in quality, and badly matched. The Brown and Partridge made amends with a splendid class, and even the Rev. Wm. Hodson was only second. There were good White birds, and good *Brahmas*; but exhibitors in the latter class must recollect all the combs in a pen must be similar. Inattention to this lost prizes to some good birds. The *Game* were an excellent collection.

The *Gold Pencilled* were better than the *Silver*; but the *Gold Spangled* were most excellent.

The *Silver Polands* were the best of the class, with the exception of an unusually good pen of White ones. The *Black Bantams* and the *Gold-Laced Sebrights* were very good. The weights of the prize *Geese* shall speak for them. They were respectively 63lbs., 53lbs., and 52lbs.

There was a change in *Turkeys*, inasmuch as the Black defeated their Grey antagonists—two pens of that colour, weighing 53½lbs. and 53lbs. The Judges were Mr. Fox and Mr. Bailly, London.

DUCKS (White Aylesbury).—1. First, Mr J. Weston, Oxford Road, Aylesbury. 6. Second, Mr J. K. Fowler, Prebendal Farm, Aylesbury. 2. Third, Mr J. Weston, Oxford Road, Aylesbury. 3. Fourth, Mr J. Weston, Oxford Road, Aylesbury. (An unusually good class.)

DUCKS (Rouen).—13. First, Mr J. K. Fowler, Prebendal Farm, Aylesbury. 12. Second, Mr J. Weston, Oxford Road, Aylesbury. 9. Third, J. H. Braikenridge, Esq., Chew Magna, near Bristol. 11. Fourth, Theed W. Pearse, Esq., Bromham Road, Bedford.

DUCKS (Any other variety).—18. First, Miss Steel Perkins, Sutton Coldfield, near Birmingham. (Black Buenos Ayres.) 24. Second, Rev. J. Williams, Tring Park. (Call Ducks.) 20. Third, Mr. James Rodwell, Aylesbury. (Coloured Aylesbury.) Highly Commended.—15. W. T. Squire, Esq., Barton Place, near Wilden Hall, Suffolk. (Buenos Ayres.) 16. Mr W. Burt, Weston Turville. (White Polands.) 22. Miss Edith Fowler, Prebendal Farm, Aylesbury. (Black Velvet.) 23. Rev. J. Williams, Tring Park. (Labrador.)

SPANISH.—37c. First, F. A. Philbrick, Esq., Colchester. 37A. Second, R. R. Clayton, Esq., Hedgerley Park. 33. Third, Mr William Taylor, Walnut-tree Hall, Ampthill, Beds. 28. Fourth, Mrs B. J. Ford, Ide, near Exeter.

DORKING (Coloured).—48. First, Rev. F. Thursby, Abington Rectory, Northampton. 46. Second, Mr W. H. Denison, Hardwick Cottage, Woburn, Beds. 53. Third, F. A. Philbrick, Esq., Colchester. 38. Fourth, W. T. Squire, Esq., Barton Place, near Wilden Hall, Suffolk. Highly Commended.—41. W. G. K. Breavington, Esq., Hounslow. 45. Mr W. H. Denison, Hardwick Cottage, Woburn, Beds. (A very good class of birds.)

DORKING (White).—60. First, W. G. K. Breavington, Esq., Hounslow. 62. Second, Mrs Mills, Bistern, near Ringwood. 61. Third, Mr W. Burt, Weston Turville.

COCHIN-CHINA (Cinnamon or Buff).—66. First, Mr T. Hincks, Pen Field, Wolverhampton. 71. Second, W. Dawson, Esq., Upper House, Hopton, Mirefield, near Normanton. (Silver Cinnamon.) 72. Third, Rev. E. Luce, Amersham. (Buff.)

COCHIN-CHINA (Brown or Partridge-feathered).—79 and 80. First and Third, Mrs B. J. Ford, Ide, near Exeter. 82 and 81. Second and Fourth, Rev. G. F. Hodson, North Petherton, near Bridgewater. Commended.—75. Mr A. Fryer, Chatteries, Cambridgeshire. 85. T. Bridges, Esq., Bridge Cottage, Croydon.

COCHIN-CHINA (White or Black).—91. First, W. Dawson, Esq., Upper House, Hopton, Mirefield, near Normanton. (White.) 96. Second, F. Edwards, Esq., Bulstrode Park. (White.) 87. Third, W. G. K. Breavington, Esq., Hounslow. 89. Fourth, Mr J. K. Fowler, Prebendal Farm, Aylesbury. (White.)

SHANGHAI (Grey Brahma Pootra).—97. First, Rev. J. Thursby, Abington Rectory, Northampton. 95. Second, W. G. K. Breavington, Esq., Hounslow. 94. Third, F. Edwards, Esq., Bulstrode Park. 98. Fourth, Lady Frankland Russell, Chequer's Court.

GAME FOWL (Black-breasted and other Reds).—105. First, Theed W. Pearse, Esq., Bromham Road, Bedford. 102. Second, James Monsey, Esq., Thorn Lane, Norwich. 112. Third, Mr R. Sheen, Buckingham Road, Aylesbury. Highly Commended.—109. Mr R. Stuchbury, Baynard's Green, near Bicester.

GAME FOWL (Any other colour).—120. First, Theed W. Pearse, Esq., Bromham Road, Bedford. (Duckwing.) 119. Second, Mr W. Baker, Stoke Mandeville. (Blue.) 128. Third, Mr E. H. Strange, Ampthill, Beds. (Staffordshire Pile.) Highly Commended.—116. Mr J. Smith, Oving. (Black.) Commended.—123. Mr H. Wheeler, Aylesbury. (Black.)

GOLDEN-PENCILLED HAMBURGH.—129. First, R. Oxley, Esq., Windsor. 131. Second, Mr W. Taylor, Walnut-tree Hall, Ampthill, Beds. 137B. Third, Mr Allen, Ampthill, Beds.

GOLDEN-SPANGLED HAMBURGH.—138. First, F. Edwards, Esq., Bulstrode Park. 141 and 142. Second and Third, H. Thompson, Esq., Market-street, Windsor. (This class very good.)

SILVER-PENCILLED HAMBURGH.—151. First, F. A. Lavender, Esq., Biddenham, near Bedford. 155. Second, Mr W. Taylor, Walnut-tree Hall, Ampthill. 147. Third, Mr W. H. Denison, Hardwick Cottage, Woburn, Beds.

SILVER-SPANGLED HAMBURGH.—173. First, Rev. J. Williams, Tring Park, Herts. 172. Second, Mr R. Jones, Diuton. 174. Third, R. R. Clayton, Esq., Hedgerley Park.

POLAND (Black, with White Crests).—178. First, F. Edwards, Esq., Bulstrode Park. 179. Second, Mrs Mills, Bistern, Ringwood.

POLAND (Any other colour).—186. First, W. G. K. Breavington, Esq., Hounslow. (Silver.) 183 and 184. Second and Third, F. Edwards, Esq., Bulstrode Park. (Silver.) Commended.—190. Mr E. H. Strange, Ampthill, Beds. (Golden-spangled.) 191A. R. R. Clayton, Esq., Hedgerley Park. (Golden.)

ANY OTHER BREED OF FOWL.—192. First, C. E. Coleridge, Esq., Eton. (Black Hamburgh or Black Pheasants.) 195. Second, W. Dawson, Esq., Upper House, Hopton, Mirefield, near Normanton. (Serai Took or Sultan Fowl.) 194. Third, Mrs Mills, Bistern, Ringwood. (Andalusian.)

BANTAMS (Gold-laced).—198. First, Mr T. Hincks, Pen Field, Wolverhampton. 199. Second, Rev. G. F. Hodson, North Petherton, near Bridgewater. 197. Third, Mr J. Monsey, Thorn Lane, Norwich.

BANTAMS (Silver-laced).—200. First, Mr James Monsey, Thorn Lane, Norwich.

BANTAMS (Any colour).—204. First, Rev. G. F. Hodson, North Petherton, Bridgewater. (Black.) 201. Second, Mr E. W. Baker, Great Gaddesden, near Hemel Hempstead, Herts. (Black.) 203. Third, F. A. Lavender, Esq., Biddenham, near Bedford. (Speckled.)

GESE.—210. First, F. Edwards, Esq., Bulstrode Park. 212. Second, Mr B. Todd, Sedrup, Hartwell. 214. Third, Mr J. K. Fowler, Prebendal Farm, Aylesbury. (Grey.) Highly Commended.—211. Lady Frankland Russell, Chequer's Court, Ellesborough. (Chinese.)

TURKEYS.—216. First, Mr W. Reading, Great Kimble. 224. Second, C. Edwards, Esq., Brockley Court, near Bristol. 215. Third, Mr W. Reading, Great Kimble. Highly Commended.—218. F. Edwards, Esq., Bulstrode Park. Commended.—217. H. Hammer, Esq., Stockgrove, Fenny Stratford. (Copper-coloured Norfolk.) 219. Mr B. Todd, Sedrup, Hartwell.

EXTRA STOCK.—Highly Commended.—231. Mr B. Todd. (Aylesbury Top-knot Ducks.) Commended.—229. Hon. C. C. Cavendish, Latimer's. (Speckled Dorkings.)

DUBLIN SOCIETY'S POULTRY SHOW.

This took place at Dublin in the third week of December. The awards were as follows:—

SPANISH.—First, William Ledwich, Bushfield, Philipsburgh Avenue. Second, J. Hamilton Reid, Holmston House, Kingstown. *Chickens.*—First, Richard W. H. Nash, 6, Drumcondra Terrace. Second, William B. Selwood, Pearemount, Rathgar.

WHITE SPANISH.—Prize, Richard P. Williams, 38, Dame-street.

DORKINGS (Coloured).—First, Joseph F. Darley, 14, Upper Leeson-street. Second, Richard P. Williams, 38, Dame-street. Commended.—Wm. C. Domville, Thornhill, Bray. *Chickens.*—First, Miss Watkiss, Elm Park, Merriem. Second, Richard P. Williams, 38, Dame-street, Dublin. Commended.—Richard P. Williams.

SHANGHAI OR COCHIN-CHINA (Light colour, Buff, Cinnamon, Gray, or White).—First, James Forrest, jun., Seafield Avenue, Monkstown. Second, William Ledwich, Bushfield. *Chickens, light colour.*—First, Daniel Kinahan, Roebuck Park, Dundrum. Second, James Forrest, jun., Seafield Avenue, Monkstown. Commended.—Daniel Kinahan, Roebuck Park.

SHANGHAI OR COCHIN-CHINA (Dark colours).—First, George Kinahan, Glenville, Monkstown. Second, James R. Dombrain, 36, Leeson-street.

MALAY.—First, Mrs. Delany, Blanchardstown, Cabinteely. No second awarded. *Chickens.*—First, Mrs. Delaney, Blanchardstown, Cabinteely. No second awarded.

DUTCH PENCILLED FOWL.—"Bolton Gray."—First, Daniel Kinahan, Roebuck Park, Dundrum. Second, J. Hamilton Reid, Holmston House, Kingstown. *Chickens.*—First, George Kinahan, Glenville, Monkstown. Second, Sir Edward McDonnell, Merriem Square, Dublin.

GAME FOWL (Black-breasted and other Reds).—First, Matthew Halpin, Richmond, Fairview. Second, Glascott Symes, Bonnybrooke, Artane. *Chickens.*—First, Matthew Halpin, Richmond, Fairview. Second, same exhibitor.

GAME FOWL (Duckwings and other Grays, White and Piles).—First, Charles Watkin Williams, Richmond, Drumcondra. Second, Charles Watkin Williams. *Chickens.*—First, Charles Watkin Williams, Richmond, Drumcondra.

SEBRIGHT BANTAMS (Golden).—First, James R. Dombrain, 36, Leeson-street, Dublin.

SEBRIGHT BANTAMS (Silver).—First, James R. Dombrain, 36, Leeson-street, Dublin.

WHITE-CRESTED BLACK FOWL.—Prize, Richard P. Williams, 38, Dame-street. *Chickens.*—Prize, Richard P. Williams, 38, Dame-street.

SPANGLED HAMBURGH (Golden).—Prize, Richard P. Williams, 38, Dame-street. *Chickens.*—Prize, Richard P. Williams, 38, Dame-street.

SPANGLED HAMBURGH (Silver).—First, Richard P. Williams, 38, Dame-street, Dublin. Second, Richard P. Williams. *Chickens.*—First, Richard P. Williams, 38, Dame-street. Second, Richard P. Williams.

TURKEYS (American).—First, Colonel Hill, Oatlands, Castleknock. Second, Wm. C. Domville, Thorn Hill, Bray. *Poults.*—Prize, Colonel Hill, Oatlands, Castleknock.

TURKEYS (Norfolk).—First, the Rev. Thomas Adderly Stopford, Clongill Rectory, Navan. Second, Rev. Thomas Adderly Stopford.

GERSE (Improved Breed).—First, Mrs. Warburton, Kill, County Kildare. Second, Mrs. Arthur Cane, Clondalkin. *Goslings.*—First, Wm. C. Domville, Thorn Hill, Bray. Second, Rev. Thomas Adderly Stopford, Clongill Rectory, Navan.

DUCKS (Aylesbury).—First, George Perrin, Leslie Cottage, Dalkey. Commended.—Major G. A. F. Quentin, Oldcourt, Waterford. *Ducklings.*—First, Mrs. Warburton, Kill, County Kildare. Second, Richard P. Williams, 38, Dame-street, Dublin.

DUCKS (Roan).—Prize, Richard P. Williams, 38, Dame-street. *Ducklings.*—First, John North, Guildford Terrace, Corrig Avenue, Kingstown.

The Silver Cup offered by the Amateur Poultry Society, for the best of all the Prize Lots, was awarded to Richard P. Williams, Esq., for Lot 126, White-crested Black Fowl, which were perfect specimens of their variety.

PIGEONS.—*Fantails.* Prize, Mr. Jones, 12, Amiens-street, Dublin. *Carriers.*—Prize, Mr. H. Woods, 19, Upper Dominick-street, Dublin, for a pair of dun birds. *Turbits.*—Prize, Mr. Richard W. H. Nash, 6, Drumcondra Terrace, for a pair of yellow birds. Prize, Mr. Jones 12, Amiens-street, Dublin. *Jacobins.*—Prize, Mr. R. J. Harvey, St. Patrick's Place, Cork. *Barbes.*—Prize, Mr. Richard W. H. Nash, 6, Drumcondra Terrace.

RABBITS (Lob-eared).—Prize, Richard W. H. Nash, Drumcondra Terrace.

The Judges on Poultry were—W. H. Clarke, Esq., Larch Hall, Rathfarnham; J. M. Dolier, Esq., Collegues, Booterstown; Thomas Rutherford, Esq., Mooretown House, Ardee.

The Judges on Pigeons were—Arthur E. Gayer, Esq., LL.D., Upper Mount-street; F. Smith, Esq., Leicester-road, Rathmines; J. F. Darley, Esq., 14, Upper Leeson-street.

SUGGESTIONS TO THE COMMITTEE OF THE BIRMINGHAM POULTRY SHOW.

BIRMINGHAM, that Leviathan of our numerous Poultry Shows, has just closed, and, as a whole, the exhibition of 1855 has infinitely surpassed the anticipations of the most sanguine, and "congratulations are the universal order of the day."

After such a statement, many will rest assured that alterations are unnecessary, and that, if attempted, a doubtful issue would be the infallible result. Still, reflection naturally suggests to us, "let us look for any weak points experience develops, and, if possible, counteract their influences." Urged by this impulse, the following suggestions are mooted for the consideration of the Birmingham council for the poultry department, in the hope, at least, of calling the attention of the gentlemen who compose that body, to their importance, and the necessity of regulations which admit neither of *double* significations, nor such as are readily and openly evaded.

First, then, as to the regulations which enforces—"the ages of the chickens must be *accurately* stated." It is quite notorious to every one at all intimately acquainted with poultry lore, more especially "breeders," that *this* rule is far more frequently disregarded than obeyed. Let any really *practical* person take in his hand the printed catalogue of almost any poultry meeting, visit each pen consecutively, form his own conclusions *before* reference to the particulars enunciated in its pages, and, from after comparison, we feel assured he will not disown any previously expressed conclusion, or feel otherwise than astounded at the variety of erroneous statements that prevail.

There are many, no doubt, to whom a false statement of the ages of chickens would be abhorrent, and who punctiliously obey the directions of the society; but, on the other hand, it is deplorable to observe the many shades of deception wilfully practised by the less scrupulous. Some deduct only a few weeks from the *actual* ages of their chickens; others, still more lax, subtract, perchance, a couple or even three months; whilst the most daring exhibitors will sometimes unblushingly assert, "hatched in *August*," well knowing the self-imposed care they bestowed upon those youngsters during the bleak and searching trials of the preceding *March*! The writer of these remarks can vividly call to mind some half-dozen instances of even the *last* occurrence, which, when discovered and *exposed*, produced either an unwilling avowal of their culpability, "because so many did the same;" an admission "that not having reared the chickens, the date was affixed at hazard," or a downright stubborn adhesion to their previous wilful misstatement; even though after inquiries instituted expressly for this purpose proved, beyond the possibility of doubt, to all the committee, that the error had not crept in accidentally. Surely, it will never be contended that a premium held out to deceptiveness is either a prudent course, or one at all calculated to support the *permanency* of our poultry exhibitions. These false statements have equally the effect of breaking down the spirits of the well-disposed amateur at the *commencement* of his career, as they also undoubtedly produce feelings of distrust and contempt in those long-practised in breeding poultry. Were the rule simply confined "*to chickens of the present year*," leaving the judges to determine their excellence *proportionably* to their apparent age, the advantages hoped for from misrepresentation would be altogether expunged, consequently, practices so really reprehensible would cease to be adopted.

Of cottagers' poultry I need say but very little. It is everywhere admitted, that most of such prizes are eventually secured by the fowls of well-known exhibitors, merely *lent* for this especial purpose. It is, indeed, much to be deplored that the kind efforts of poultry committees should be thus defeated; or that the really necessitous cottager should find his long-cherished hopes laid prostrate by the com-

bined acts of parties not unfrequently bearing the intimate position of employer and employed. Yet so it is; and oftentimes the self-same successful birds resume their original position in some *other* exhibition, even in the space of a few weeks only; are again the favoured ones on the prize list, but have suddenly affixed to them the names of parties, who, if taxed with the imposture, strive to justify its commission, by explaining "they were lent to our man, to do him a good turn." That such unforeseen ill-usage should raise feelings of resentment in the poor man who honestly did exhibit his "own fowls" (and was thus defeated), is but the natural impulse common to all human nature; more particularly irrepressible by those individuals in society whose early years passed by, most probably, devoid of that moral and religious culture which, at the present moment, is happily within the reach of most parties, however straightened their position.

The antidote I propose is, to either withhold the cottagers' premiums altogether, or enforce, *rigidly*, a rule confining competition to the poultry "*actually* their own property," without collusion with any one.

The clause of "two months prior ownership," by amateurs exhibiting, is "only a form," says some. If so considered by a *numerous* class of contributors, why not only simply enjoin, "the poultry competing must be the *bona fide* property of the exhibitor?" It would prevent the great amount of erroneous statements now constantly adopted by the indifferent on such matters.

On the restriction of "competition for prizes being confined *strictly* to amateurs," I will say no more than that it is constantly broken; and the difficulty of assigning the real line of demarcation between a dealer and an amateur is so universally acknowledged, that perchance, even an attempt at arrangement, in this particular instance, would not eventually be productive of improvement; whilst the *less daring* may possibly feel some little restraint at transgressing this regulation among those dealers who hesitate not to openly avow their daily avocation.

Of the rule limiting exhibitors to the entry of *four pens only*, little need be here said. The list of subscribers will best tell its own tale; the principal of a family, his wife, a whole batch of little ones of the same name (or if these latter are wanting), sisters, nephews, nieces, *any* relations, are "temporarily called in" to *assume* the proprietorship for the time being; combined with the additional infraction of "signing a certificate," that the fowls have for two months prior to exhibition been their own individual property. No doubt the originators of this regulation adopted it to prevent a "wholesale sweep" of the prize list by one single exhibitor; or, as inferred by the restriction of admitting but two pens in the *same* class, to prevent the same result in regard to any particular variety. But the scrutiny proposed will fully prove the open evasion *practised* and *allowed*. The suggestion then naturally presents itself to the mind, that even open defiance of all rules is thus *tolerated*, if attended with a proportionate increase of subscription. Certainly it would not limit, or increase, the amount of entries (numerically considered), if, *after* a first subscription, an exhibitor of four pens for one sovereign were permitted farther entries for sums previously determined. It might possibly prevent the frequent admission of numbers of pens of the same variety of poultry from one yard, in a single class; and certainly would obviate the conclusion now proverbial, "that a broken law, if well gilded, still remains entire." The number of *gratuitous* admission cards allotted to each subscriber, by present arrangement, would, consequently, be lessened very materially by the rule proposed, and the coffers of the society benefited in exact proportion.

The above cursory remarks have been indited by one who has had most extended experience in witnessing the "working-out" of a great variety of regulations connected with poultry exhibitions, and who has ever felt desirous to promote their permanency and success. That it is a subject of vital importance to all our *minor* meetings for the "Birmingham rules" to be as nearly perfect as possible, will not be open to dispute (as these regulations are followed wholly or in part by most of them), nor will it be denied the welfare of even "the Triton of our poultry exhibitions," may be enhanced by a due revision of each and all of them, as experience may necessitate, or unforeseen difficulties may occur.

It is with these feelings *alone* the above suggestions are proposed so immediately after the conclusion of the late successful show, in the hope that some, at least, may be reviewed impartially, and, if considered advisable, introduced into the list for 1856, which will now speedily be issued to the public.—* *

COCHIN-CHINA FOWLS BECOMING SILKY.

As the eccentricities of Poultry should find space in the *CHRONICLE* devoted to the subject, I will mention a curious fact connected with some Cochin-China fowls.

I had ten, nine pullets and a cock, in a good, roomy pen. The cock suddenly became silky, not a feather remaining. I removed him, and substituted a valuable young bird: he sickened and died in a fortnight. I purchased a third, and he became silky. All three were of different strains, and in all respects perfect when they were put in. The hens have never ailed anything, nor has any other bird that has inhabited the same pen.—*PILOS.*

DISAPPEARANCE OF RED-LEGGED PARTRIDGES.

As Game is akin to Poultry, will you allow me to put a query in your *CHRONICLE*, which may, perhaps, find an answer from some of your numerous readers?

It is a proved fact, that a large number of Red-legged Partridges may be reared, and kept perfectly tame till they are shot at. They then disappear, and are *never* seen again, or even heard of. I have known this to happen in Wales, Hampshire, and Gloucestershire. Do they return to Suffolk? Although landed proprietors do their best to exterminate them in that county they cannot do so.—*S. M.*

PARTRIDGE-COLOURED SHANGHAES.

As one of the oldest amateurs who have bred the Partridge or Grouse variety of Cochin-China fowls, I thank you for the favourable support which you have given to that breed, and trust that you will not think the fact unworthy of notice, if I remind you, that with reference to your remarks on the Cirencester Poultry Show, "that it was a *novelty* for the Partridge to distance the other coloured Cochin," that the same success was achieved by Mr. Hodgson, at Anerley and Taunton, in both instances carrying away the cups as the best specimen of Cochin in the shows.

I also had the satisfaction of taking the first prize with a pen of Partridge, at Bedford, in the mixed class of Cochins; and to show that the Partridge are considered worthy of distinction, I have, since the date of your article, taken the first prize at Birmingham, with a Partridge Cochin, in the single cock class of all colours.—*THOMAS BRIDGES, Croydon.*

NOTICE TO EXHIBITORS.

"On receipt of twelve postage stamps from any Exhibitor or Subscriber, the Secretary will send a copy of the Exhibition Catalogue and Award of Prizes, post free, by *Thursday night's post*.

"Essex Poultry Association,
"19, High-street, Colechester.

"December 20th, 1855."

The above paper, issued by the Secretary of the Colechester Poultry Show, might afford a hint to the Committees of other similar shows.

Many exhibitors are unable to attend personally at such shows, and, although they may, through the medium of your paper, learn to whom prizes have been awarded, yet, if themselves successful, they are left in ignorance of the names of those exhibitors whose fowls have been less triumphant than their own.—*E. V. H., Hastings.*

TREATMENT OF SHANGHAI FOWLS.

IN reply to a Morayshire inquirer. Morayshire is not worse than any other *shire* for Cochins. If it be a cold,

damp, and variable climate, "what of that?" The opposite one, Devonshire, is just as uncongenial. The atmosphere is truly mild, but counterbalanced by its cold, tenacious clay soil, producing, necessarily, more drawbacks to the healthy condition of birds than snow, rain, or frost, in a permeable and gravelly soil. With regard to the general treatment of Cochins, they are the most manageable birds imaginable, requiring little care and attention.

Your Morayshire correspondent asks for a substitute for trowsers to keep his Cochins legs and toes warm. On referring to a number of *Punch*, I see the very thing admirably burlesqued; little did I think that the question of trowsers for Cochins would really have been recommended. "Never mind, 'tis Christmas time," all my family have had their laugh, and I'll tell your enquiring friend what to do as a remedy for the infirmities of his poor birds.

Imprimis. Do not be so anxious to give your Cochins a large range, they are a listless, inactive folk, and, provided they have a moderate space, green food, sand, and a place set apart for some clean, loose straw, with some barley thrown daily amongst it, as an amusement, they will be perfectly contented, and if kept dry there will be no frost-bitten toes. A stiff cross-bar perch in the centre of the house is indispensable, and a preventive, as the birds dry and preen themselves on it.

I do not think Cochins are a bit the better for a very large range, especially in winter. Nor have I seen any good result from cramming. Most injurious effects result from a too long use of soft food, the crop gets preternaturally distended, and, from the gizzard having its mill unemployed, an inactive state of the digestive organs accrues, producing hepatic, or liver diseases, accompanied by a sub-acute inflammation of the membrane lining of the crop, producing loss of appetite, listlessness, and death.

As to the laying properties of the Cochins, they certainly are variable in that respect. The breeding *in and in* of the Buffs has made them less productive than the Partridge-coloured kind, which I apprehend is the primitive one, as the Buffs have a tendency to return to it. But stop! I find I must not get out of my depth respecting the diseases and races of poultry with your able coadjutor, so I again sign myself—*W. H.*

LONDON MARKETS.—JANUARY 7TH.

COVENT GARDEN.

A marked improvement has taken place in the supply these last few days, and the prices somewhat lower for *Brocoli* and *Cauliflower*. It is surprising to see how soon vegetation has thrown off the effects of the frost. Scarcely any traces of it remain in what comes to market, and should the open weather continue, we shall soon have quite sufficient for the demand. Among fruits we have to notice an unusual quantity of good *Pines*, chiefly of the *Montserrat* variety, the best of which can be had for 6s. per lb. The supply of *Grapes* is still good. *Pears* consist of *Nelis d'Hiver*, *Chaumontelle*, *Glout Morceau*, and two or three varieties of baking Pears.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s.
" dessert	6s. ,, 10s.
Pears	8s. ,, 12s.
Peaches, per doz....	5s. ,, 8s.
Neectarines, per doz...	—
Plums, per sieve	4s. ,, 8s.
Pine-apples, per lb...	4s. ,, 6s.
Grapes, per lb.....	1s. ,, 6s.
Foreign Melons, each	2s. ,, 4s.
Figs.....	—
Gooseberries, per qt.	—
Currants.....	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel.....	20s. ,, 22s.
Nuts, Brazil, per bushel.....	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts per bushel	12s. ,, 20s.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d
" Red, per doz.	2s. ,, 4s.

Cauliflowers, per doz.	4s. ,, 6s.
Brocoli per bble	1s. ,, 2s.
Savoy.....	9d. ,, 1s. 6d.
Greens, per dozen bunches	3s. ,, 6s.
Spinach, per sieve....	— ,, 4s.
Beans	—
French Beans, per half sieve	—
Searlet Runners	—
Peas, per bushel	—
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Turnips, per bunch ..	3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s. 6d.
" Cabbage....	6d. ,, 8d.
Endive, per score ..	1s. ,, 1s. 6d.
Celery, per bunch....	8d. ,, 1s.
Radishes, Turnip, per dozen bunches ..	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.

COVENT GARDEN—Continued.

Small Salad, per punnet.....	2d. ,, 3d.	Mushrooms, per pot 1s.6d. ,, 2s.6d	
Artichokes, each	3d. ,, 6d.	HERBS.	
Asparagus, per bundle	8s. ,, 10s.	Basil, per bunch	4d. to 6d.
Sea-kale, per punnet	3s. ,, 5s.	Marjoram, per bunch	6d. ,, 9d.
Rhubarb, per bundle	1s. ,, 1s. 6d.	Fennel, per bunch ..	2d. ,, 3d.
Cucumbers, each	1s. ,, 3s.	Savory, per bunch ..	2d. ,, 3d.
Vegetable Marrow, per dozen	—	Thyme, per bunch ..	2d. ,, 3d.
Tomatoes, per punnet	1s. ,, 2s. 6d.	Parsley, per bunch ..	2d. ,, 3d.
		Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, JAN. 4.—The arrivals are not large, yet quite sufficient for the wants of the trade. This morning, Wheat finds a limited sale at Monday's currency, for both English and Foreign. Barley is very languid for all descriptions. For Oats there is more inquiry, and quotations are 6d. higher. Beans, Peas, and other things attract very little attention, and consequently there is no change in quotations.

WHEAT, Essex and Kent red, old.....	—s —s —s, fine —s —s	0s
Ditto ditto new.....	72s 77s —s, fine 79s —s —s	—s
Ditto ditto white old.....	—s —s —s, fine —s —s —s	—s
Ditto ditto new.....	76s 85s —s, fine 86s —s —s	—s
Foreign, red.....	75s 81s —s, fine 82s 85s —s	—s
Ditto, white.....	84s 88s —s, fine 88s 93s —s	—s
RYE.....	52s 54s, fine —s —s	—s
BARLEY, grinding.....	34s 36s, fine —s —s	—s
Distilling.....	36s 38s, fine —s —s	—s
Malt.....	39s 41s, fine 40s 42s	—s
MALT.....	74s 78s, fine 80s 82s	—s
PEAS, hog, new.....	42s 42s, fine —s —s	—s
Maple.....	45s 47s, fine —s —s	—s
White.....	51s 63s, fine —s —s	—s
Blue.....	54s 56s, fine —s —s	—s
BEANS, pigeon.....	54s 56s —, new 50s 52s —s	—s
Ticks for splitting.....	41s 46s —, new 42s 44s —s	—s
Harrow.....	52s 54s —, new 46s 48s 50s	—s
OATS, English feed.....	25s 26s, fine 26s 28s	—s
Poland or brew.....	23s 29s, fine 29s 30s	—s
Scotch potato.....	32s 33s, fine 33s 34s	—s
Ditto feed.....	30s 31s, fine 31s 32s	—s
Irish potato.....	23s 29s, fine 30s 31s	—s
Ditto feed white.....	25s 27s, fine 27s 28s	—s
Ditto black.....	25s 27s, fine 27s 28s	—s
Foreign feed free.....	24s 26s, fine 26s 28s	—s
Poland or brew.....	28s 29s, fine 29s 31s	—s
FLOUR, Town made, per sack.....	70s 72s 75s*, Seconds 65s 68s	—s
Essex and Suffolk.....	—s —s —s, 57s 60s	—s
Norfolk.....	55s 56s	—s

* This is a nominal price.

HOPS.

BOROUGH MARKET, FRIDAY, JAN. 4.—The trade in all Hops of good quality continues steady, and choice samples command an advance on last week's rates. In other descriptions there is also a fair amount of business doing, and the market on the whole exhibits a firm appearance.

Mid. and East Kents, 70s. 100s. to 112s; Weald of Kents, 60s. 80s. to 95s.; Sussex Pockets, 56s. 80s. to 90s.

HAY AND STRAW.

Clover, 1st cut per load.....	110s. to 140s.	Rowan.....	80s. , 90s.
Ditto, 2nd cut	90s. , 130s.	Straw, flail.....	30s. , 36s.
Meadow Hay.....	90s. , 130s.	Ditto, machine....	28s. , 30s.

POTATO.

SOUTHWARK WATERSIDE—DEC. 31.—The sudden and severe frost which had created an improved demand has been succeeded by very mild, open weather, since which change the trade has been very depressed, and sales limited at our quotations. Kent and Essex Regents, 85s. to 90s.; ditto Shaws, 80s. to 0s.; York Regents, 100s. to 110s.; Lincolnshire Regents, 85s. to 95s.; Wisbeach and Cambridge Regents, 80s. to 95s.; Bedford Regents, 0s. to 0s.; ditto Shaws, 0s. to 0s.; Norfolk Regents, 80s. to 90s.; ditto Whites, 0s.; Scotch Regents (East Lothian), 85s. to 90s.; ditto (Red Mould), 90s. to 94s.; ditto (Perth and Fife), 75s. to 85s.; ditto (North Country), 70s to 80s.; Dahlias and Rattlers, 70s.; Blues, 80s.; Orkney Reds (East Lothian), 85s. to 90s.; ditto ditto (Red Mould), 95s. to 95s.; Scotch Cups (Perth and Fife), 70s. to 80s.; ditto (North Country), 65s. to 70s.; Irish Kemps and Clusters, 70s. to 0s.; ditto White Rocks, 70s. to 0s.; ditto common Whites, 0s. to 0s. per ton.

POULTRY.

An almost total absence of demand, render quotations difficult. There is but a very small supply, or the unfavourable nature of the weather would cause much loss to senders.

Large Turkeys . 10s. to 15s. each.	Wild Ducks 2s. 3d to 2s. 6d. each.
Smaller Ditto.. 6s. 6d. to 9s. ,	Teal 1s. to 1s. 6d. ,
Large Fowls .. 5s. to 5s. 6s. ,	Woodcocks 3s. 6d. to 4s. 0d. ,
Smaller do. . . 3s. 6d. to 4s. ,	Snipe ... 1s. 6d. to 1s. 9d. ,
Chickens... 2s. 3d. to 2s. 9d. ,	Larks... 1s. 3d. to 1s. 6d. per doz.
Geese 7s. to 8s. ,	Pigeons.... 10d. to 1s. 0d. each.
Pheasants .. 3s. to 3s. 3d. ,	Rabbits .. 1s. 5d. to 1s. 6d. ,
Partridges... 2s. to 2s. 3d. ,	Wild do..... 10d. to 1s. ,
Hares 3s. to 0s. 0d. ,	

PROVISIONS.

The following are the quotations:—

BUTTER.—Cwt.	HAMS.—Cwt.
Cork..... 100s. to 112s.	Irish..... 82s. to 86s.
Limerick..... 98s. , 102s.	Westphalia 72s. , 76s.
Carlow 108s. , 112s.	
Sligo 100s. , 105s.	LARD.—Cwt.
Carrick..... 108s. , 112s.	Bladdered 76s. to 80s.
Waterford 100s. , 106s.	Kegs..... 68s. , 70s.
Holstein 102s. , 116s.	P.M. beef (304lb.) 105s. , 0s.
Friesland 113s. , 116s.	P.M. pork..... 95s. , 97s. 6d.

BACON.—Cwt.	CHEESE.—Cwt.
Waterford sizeable 56s. to 62s.	English, NewCheshire, 70s. to 84s.
Heavy 54s. , 58s.	Cheddar..... 74s. , 90s.
Limerick sizeable .. 0s. , 0s.	Gloucestershire, dble. 66s. , 73s.
Hambro'..... 56s. , 58s.	Ditto, single 60s. , 70s.
Bale middles 0s. , 0s.	Foreign—
Tierce middles 64s. , 0s.	Edam 56s. , 60s.
American—	Gouda 50s. , 56s.
Singed sides 56s. , 58s.	Kanta 28s. , 0s.
Boneless middles .. 0s. , 0s.	American 56s. , 62s.
Short middles..... 0s. , 0s.	

MEAT.—To sink the offal—per slb.

s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Beef..... 3 6	4 10	5 2	Veal..... 4 8	5 2	5 8
Mutton 4 0	4 10	5 2	Pork..... 4 2	4 6	5 0

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11d, the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs 1s. 2s. to 1s. 3d.	Kent fleeces .. 1s. 1d. , 1s. 2d.
Ditto Tegs and	Leicester fleeces... 1s. , 1s. 1½d.
Ewes 1s. 1d. to 1s. 2d.	Long, heavy do..... 11d. to 1s.
Half-bred Hog-	Combing skins .. 10½d. to 1s. 1d.
gets 1s. 3d. to 1s. 3½d.	Flannel wool.. 1s. 1d. to 1s. 2½d.
Do. Wethers 1s. to 1s. 2d.	Blanket wool 6d. to 11d.

BARK.

English Bark, per load of 45 cwt., 14l. 10s. to 16l.; Mimosa, 0l. to 0l. 0s.; and Valonia, 12l. 10s. to 17l. 10s. per ton.

TO CORRESPONDENTS.

CIRENCESTER POULTRY SHOW.—“I am happy to add my testimony to that of Mr. Philbrick, to the courtesy and indefatigable zeal of Mr. Trinder, at Cirencester, and I apologise to that gentleman for the omission. Mr. Philbrick is not, perhaps, aware that no prize list was published on the afternoon of the day of exhibition, and to that the error of which he complains may be attributed, as the means of information were but scanty on the morning of that day. I do not, however, plead guilty to deserving the tone of reproof in which my involuntary omission is mentioned.—YOUR REPORTER.”

MOLE-CATCHING (*Broseley*).—No other directions can be given than to set the traps in the run of the Moles. We cannot undertake to describe how to make the traps; any man on a farm ought to know how to manufacture them.

AURACARIA IMBRICATA (*C. M.*).—If you open a trench all round it, at two feet from the stem, and then clear away the earth under the plant, which is only three feet high, so that the roots are but little injured or disturbed, you may move it now during open weather.

CUT WING (*Subscriber*).—This ought to disqualify a bird, if for no other reason than it might be a distinguishing mark. You may safely breed from a cockerel and old hens, if they are not related.

COLOUR OF EGGS (*A. S. U. B.*).—The colour of the egg-shell is no criterion either of the age or quality of the Shanghai hen laying it. A cross between Shanghai and a Spanish would probably produce light eggs, but it is by no means certain.

FEATHERS ON SHANGHAES LEGS (*Idem*).—We think an abundance of feathers on their legs is a good evidence of the purity of their breed; but the absence of such feathers is no evidence of the breed being impure. Nor do we consider pale or discoloured legs an evidence of impurity. They occur, occasionally, in the best yards.

CUCUMBERS FOR SOWING NOW IN A BUNG-BED (*A Subscriber from the first*).—*Cuthill's Black-spined Victory of Suffolk*, and *Hunter's Prolific* (White-spined). If curious, try some of the new ones, so often advertised. For notes on growing Cucumbers, in pots and tubs, set on pipes and flues, see Mr. Fish's article to-day.

CAMELLIAS CASTING THEIR BUDS (*Idem*).—The late shifting would do it. If you think the compost too rich, better report them in lighter material. If the roots are beginning to run most freely, remove a portion of the top with a pointed stick, and place some silver-sand on the surface, which will wash down and lighten the soil. In either case, as soon as you can, conveniently, give the Camellias a moist atmosphere and an average temperature of 60°, to cause them to make their wood freely.

VINE MANAGEMENT (*E. D. D.*).—Your success is no bad proof that your practice is not far wrong; but in January and December we would like to give the Vines some shelter. We have known them killed, in some cases, under such exposure as you give.

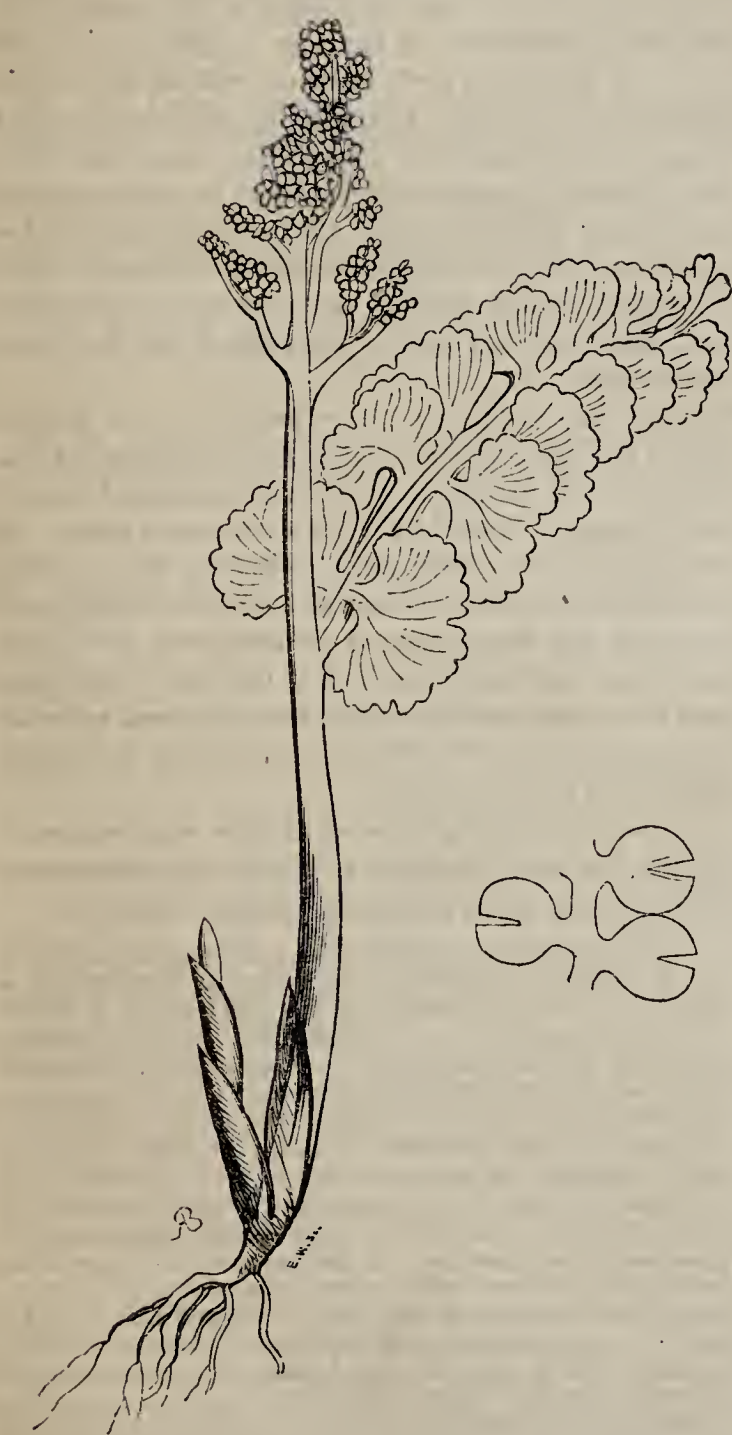
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WEEKLY CALENDAR.

D M	D W	JANUARY 15—21, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
15	Tu	Acheta domestica.	30.456—30.223	35—21	W.	00	2 a 8	17 a 4	1 8	8	9 33	15
16	W	Nepa cinerea.	30.081—30.017	40—22	N.	01	1	18	2 31	9	9 54	16
17	Th	Notonecta furcata.	30.077—30.011	32—29	N.E.	00	1	20	3 55	10	10 14	17
18	F	Notonecta glauca.	30.118—29.955	34—18	N.E.	00	0	21	5 15	11	10 34	18
19	S	Pulex irritans.	29.984—29.879	28—13	S.E.	00	vii	23	6 27	12	10 53	19
20	SUN	SEPTUAGESIMA SUNDAY.	29.839—29.702	31—18	N.E.	00	58	25	7 24	13	11 11	20
21	M	Sun's declinat., 20° 1' S.	29.841—29.724	31—17	N.E.	00	57	27	8 9	14	11 29	21

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 42.1°, and 31.7°, respectively. The greatest heat, 60°, occurred on the 19th, in 1838; and the lowest cold, 4½°, on the 19th, in 1833. During the period 108 days were fine, and on 88 rain fell.

BOTRYCHIUM LUNARIA.



THIS is known as *Common Moonwort*, *Small Lunary*, and *Moonwort*.

Its *root* is composed of a slender tap-root, from which issue numerous simple, cylindrical, yellowish fibres, like those of a Hyacinth, and proceeding in a whorl, or circle, from the tap-root, but spreading horizontally in the soil. *Stem* simple, cylindrical, pale green, erect, nine inches high, with a few large, brown, sheathing

scales at the bottom. It has only one *leaf* springing from about the middle of the stem, which leaf has five or six pairs of fan-shaped, pale milky-green, short-stalked leaflets, and a terminal leaflet of the same form. Each *leaflet* is scalloped, or toothed, on the edge, and, usually, more or less lobed. The stem ends in a doubly-compound *spike* of small, round, light brown *capsules*. These are nearly stalkless, and are arranged somewhat over-lapping each other on one flat side of the stalk, or receptacle. *Spores* oval, smooth, and, usually, jointed together in pairs.

There are three varieties, *viz* :—1. with several stalks and leaves; 2. with leaves much more cut and jagged than usual; and 3. with the leaflets divided into leaflets.

Its usual birth-places are mountain meadows, and pastures. It is not common, though found in various parts of England, Ireland, and Scotland. It has been collected in Westmorland; at Mear Bank, by Sykes Wood, Ingleton; and Settle, in Yorkshire; Seadbury Park, and Chisselhurst Common, Kent; on the north side of Bredon Hill, in Worcestershire; at Shirehampton, and on Kings-Weston-Hill, near Bristol; near Bury, in Suffolk; on Stratton Heath, in Norfolk; on coal-pit banks, near Stourbridge; at Bootle, near Liverpool; on the sea-coast between South Shields and Sunderland; on Oversley Hill, near Alcester; and near Alaw and Aberffraw rivers, in Anglesea. In *Scotland*, on Ardgarth Hill, to the north of Linlithgow; near Dundonalds, two miles from Little Loch Broom, on the west coast of Ross-shire, and in the Isle of Skye. In *Ireland*, on the rising ground of a meadow, about two hundred yards north of the second lock of Lagan Canal.

The first English botanist who mentions this Fern is Turner, who, in the third part of his "*Herbal*," published in 1568, gives a very good woodcut of the plant, and, after its description, adds, "it may be called wel in Englishe *Cluster Lunarye*, or *Cluster Moonwort*." Gerard, writing a few years subsequently, mentions many places where it had been found in England, and after describing its appearance, and stating its various appellations, proceeds to observe, that "*Small Moonwort* is singular to heal green and fresh wounds. It hath been used among the alchymists and witches to do wonders withall, who say that it will loose locks, and make them to fall from the feet of horses that graze where it doth grow, and hath been called of them *Martagon*, whereas, in truth, they are all but drowsy

dreams and illusions; but it is singular for wounds, as aforesaid."

Bauhin, in his *Historia Plantarum*, gives a copious account of this Fern, with three very good delineations of it and its varieties. He says the alchemists employed its juice for fixing Mercury.

Coles, in his *Adam in Eden*, p. 561, tells us; "It is said, yea, and believed by many, that moonwort will open the locks wherewith dwelling-houses are made fast, if it be put in the key-hole; as also that it will loosen the locks, fetters, and shoes from those horses' feet that goe on the places where it groweth; and of this opinion was Master Culpeper, who, though he railed against superstition in others, yet had enough of it himselfe, as may appear by his story of the Earl of Essex his horses, which being drawn up in a body, many of them lost their shoes upon White Downe in Devonshire, near Tiverton, because moonwort grows upon heaths." Turner, in his *British Physician*, 8vo. Lond. 1687, p. 209, is confident that though moonwort "be the moon's herb, yet it is neither smith, farrier, nor picklock." Withers, in allusion to the supposed virtues of the moonwort, in the introduction to his *Abuses Stript and Whipt*, 1622, says:

"There is an herb, some say, whose vertue's such
It in the pasture, only with a touch,
Unshoes the new-shod steed."

To induce it to grow in a Fern garden it should be moved with a square foot of the turf in which it is growing, and as much of depth of the soil undisturbed, and planted upon an open, unshaded, well-drained situation. It requires a soil light, and mixed with a little peat. It likes to have its roots covered with turf, but even the grass must not overshadow it. We never succeeded well in its culture.

MANY years ago, in those days when "The Tally-Ho," and "Eclipse," and "Old Blue," besides numerous other coaches, gave liveliness all along, and profit to many chosen spots, of the road extending between White-chapel and Colchester, a passenger descended from the racing coach first named, and sought accommodation at the road-side Inn, which scarcely looked defiant enough to justify its sign of "The Cock."

However, that was its title; and "The Cock at Boreham" was somewhat well-known as well for its good homely cheer, as a meet of the East Essex Fox-hounds, and for various other local celebrities. Amongst others, for the fact that its sign had been painted by a brush no less celebrated than that of Morland. Poor George Morland "loved good ale and wine," and he is much belied if he did not also "love good brandy," and as "The Cock" happened to afford all three of these his favourite liquors, poor Morland ran up a score there far longer than his purse could satisfy. So his brush had to complete the obliteration, and such a Game Cock (a regular Black-breasted Red) stood erect upon the sign-board as never garnished a village ale-house before. There it swung, in all weathers, upon a gibbet-like post

by the road-side opposite to that against which the Inn door abutted.

Years passed on, and the painting had faded under such exposure, when it was taken down to be retouched by some neighbouring painter and glazier! To save it from such sacrilege came the above-named Passenger per "The Tally-Ho," but he arrived too late, and the Morland relique was no more.

This Passenger was a man of plants as well as of paints, and he resolved on the day following to pass on to the first and last resting-place of John Ray, "the English Linnæus." That resting-place, Black Notley, was only some ten miles distant, and he could call by the way to see the fine old Cedars at Toppinghoe Hall, planted by Mortimer in the time of the Stuarts. So forth our Passenger sped, and after walking some three miles along the road, and passing the object of his search, and getting into some of the lanes about Hatfield Peverel, he sought for guidance of a hale-looking man whose name and trade alike were Gardener. He was courteously afforded the directions he required, and, to prevent further mistake, the gardener's son, a mere boy, was despatched to point out more clearly the object of his search.

Since then many years have passed, and no thought of that boy had ever passed across our Passenger's mind until he read in an Essex paper of a festival held at that village of Hatfield Peverel a few weeks since. At that festival, where were assembled many of the county aristocracy, the two speeches which follow were delivered. They tell how they come to be connected with these notes, and they bear witness that the son of the spade may claim the same praise as that bestowed upon his brother cultivator—"Give me a soldier from the Plough rather than from the Loom."

At the festival alluded to, at which a sword and well-filled purse were presented to the hero of the meeting, the Chairman, LORD RAYLEIGH, spoke as follows:—

"Before I perform the duty which has been imposed upon me, of presenting Lieutenant Gardner with these tokens of our esteem and approbation, I think it but fair I should state for him to those here present that he was yesterday so ill that his medical adviser recommended him to remain in his bed, and that he had a certificate written to excuse his non-attendance here to-day; but being too late for the post, he has ventured, perhaps at the risk of his life, to oppose the advice of his medical attendant, and to come in order to be present on this occasion. It may, perhaps, be thought that he should appear on this occasion in regimentals; but being very late, though he had seen his name affixed to his portmanteau, and, as he thought, a servant of the railway company with it in his hand, yet, upon his arrival at Brentwood, which was the last station he could reach, he found that his portmanteau was not forthcoming. We therefore do not meet Lieut. Gardner in that cheering and animated way in which I had hoped to have met him. But these are the effects of divine Providence, and it is as well that vanity should be stamped upon all these kinds of proceedings. (Turning to the guest of the day, he continued)—Lieutenant Gardner, I have been requested to preside upon this occasion, and deputed by the inhabitants—the gentry, the landowners of this your native parish, and also many others, such as the Vice-Chairman, who have seized upon this opportunity of doing honour where honour is due,—(cheers)—to present to you a sword and a purse. In so doing I consider we are still your debtors. (Cheers.) Your coming amongst us to-day, and

our meeting together upon this occasion, arise from you yourself having risen from a humble station of life to the honourable one you now occupy—of holding a commission in Her Majesty's service, and of being Adjutant of your regiment. (Loud cheers.) I should like it to be known, not only as far as this room is concerned, but further still, that we first of all knew you as a boy living in this parish, and on Fridays attending Chelmsford Market with your father, to dispose of the produce of his soil. (Hear.) We also knew you as a lad, who, desiring to know your duty to God and man, trudged to Witham for instruction on your leisure days. We also knew you as a youth, who, preferring independence, made your way to the metropolis, entered a chymical manufactory, and afterwards introduced your brother into it; and again, when some fourteen years ago you enlisted into Her Majesty's service; and rose, step by step, from the private to the regimental sergeant-major; until the 27th Sept., 1854, when you became in rank, what you were previously in conduct—a gentleman. (Loud cheers.) You received Her Majesty's commission as cornet, and were made adjutant of the 13th Light Dragoons; and last September you were promoted to the rank of lieutenant;—let it be known, I say, that we, of all grades of society—that we, of all pursuits, occupations, and employments,—are assembled here to-day to congratulate you upon this your meritorious success; and to express our admiration of your conduct as an Englishman and a soldier. (Much cheering.) We feel also that you have set an example to those who, by the Providence of God, are placed among the labouring classes, of what one of themselves can effect who prefers labour to idleness; the cultivation of the mind to ignorance; and independence of character to servile supineness; and we trust that the youth of this neighbourhood will have their minds elevated and encouraged by your success. (Loud cheers.) We have humbly to thank Almighty God that you have been permitted to return to this land; that though you have been a partaker in every cavalry attack in the Crimea, and although you were one of those who were engaged in that untoward, but yet brilliant charge at Balaklava—(much cheering)—a charge in which your horse was shot under you, and you yourself hit in more places than one—(hear, hear)—still that you have been permitted to return to gladden the eyes of your aged mother, and to be welcomed by your friends. I should feel that I had not completely fulfilled the wish of those whose representative I am upon this occasion, if I did not add that this sword and these sovereigns remind one of another sword and other riches; and if I did not express a hope that you will be able to wield that sword so as to become more than conqueror over all your spiritual enemies, and receive by grace those riches which are at God's right hand for evermore. (Applause.) In the name of this company, and the subscribers generally, I present you with this sword and these purses, which contain 120 sovereigns." (Long-continued cheering.)

Lieutenant GARDNER, on rising to reply, was received with long-continued cheering, on the subsidence of which he said: "I rise to return thanks for the manner in which these tokens of your kind liberality have been presented to me by my Lord Rayleigh, and for the enthusiastic reception which you have given to me; but I assure you my tongue is unable to express the feelings of my heart. (Cheers.) I re-visit my native village after an absence of many years, expecting to find it inhabited by strangers; but instead of my humble name being forgotten, I find myself welcomed and honoured in a way which I cannot sufficiently acknowledge. (Cheers.) About seventeen years ago I left this parish a poor boy. (Hear, hear.) I had the wide world before me, but without any apparent prospect of winning a position in it. I entered Her Majesty's service; rubbed on quietly; and passed through every grade up to the rank of sergeant-major. (Cheers.) At that time all was peace. A very little while after, *right* was ordered to march against *might*—(hear, hear)—and I had the honour of being one in the ranks of the former. (Loud cheers.) We marched into the enemy's country, fought him upon his own ground, and I had the satisfaction of seeing *Might*, though backed up by all the deadly implements of war, run from *Right* on the heights of Alma. (Renewed cheering.) We left the Alma as soon as we had performed the last sad office of burying our dead—and a melancholy duty it was to fulfil. From

thence we marched in the direction of the notorious Sevastopol, thinking of catching the Northern Bear; but, on the route by Mackenzie's Farm, he turned tail and ran: he dared not show his teeth that day. (Cheers.) We next marched upon Balaklava, the garrison of which soon surrendered, and left us masters of the whole country south of Sevastopol. After that we of the cavalry rubbed on pretty comfortably, now and then turning out to drive back the Cossacks, until the memorable 25th of October; and on that day I think you will acknowledge that Briton's sons taught the Autocrat a lesson. (Hear, hear.) At all events we let him know that it was a dangerous experiment to attempt to break the British lines. (Hear, hear.) I may be excused for saying that the contrast between the cavalry of the two services was immense—600 of our heavy Dragoons routed 6,000 of his chosen troops, and the Light Brigade attacked his forces and routed them, though they had thirty or forty guns in position. (Loud cheers.) True, our loss was great; but I doubt if it was not more than counter-balanced by the effect it had on the enemy, for they never attempted to attack Balaklava again. ("Hear, hear," and loud cheers.) Our next field was Inkermann, and here Britannia, through her sons, maintained her reputation, for 8,000 of our gallant fellows stood like a wall (I was an eyewitness of and can testify to their valour) against the enemy's legions from half-past five in the morning till eight at night, when our gallant allies came up, rushed upon the enemy like tigers, and determined the fortune of the day. (Cheers.) The Czar's two sons were witnesses on that occasion of the discomfiture of their ambitious father's best troops—of what he called the flower of his army. (Cheers.) Our loss was great there; but nothing at all equal to that of the Russians. (Hear, hear.) Certainly there was one very good reason—we had not that number to lose—(laughter)—and if the whole British force had fallen, it would not have reached the total of the Russian loss in that desperate encounter. (Hear, hear.) After that winter came on—a winter full of events such as I need not enumerate here. Doubtless you have all read of them; and their recollection is too painful to me to dwell upon them. (Hear, hear.) Since that time the great event of the war has been the downfall of Sevastopol—(loud cheers)—and I repeat the word "downfall," because all that the enemy retains are a few forts on the North. Sevastopol *proper* is ours—(hear, hear)—and I doubt if the northern forts will not be ours before the spring; and then I hope England may lay down her arms, and rest in peace and quietness for generations to come. (Loud cheers.) But should it be otherwise, I assure you that the sword you have just entrusted to my keeping shall never bring dishonour upon those who have so handsomely and kindly conferred it upon me; and God grant my life may be spared that I may hand it down to my son, and impress upon his mind the circumstances under which his father received it. (Cheers.) The contents, too, of these purses, I faithfully promise you shall not be squandered away, but put to some good account for the benefit of my family hereafter. (Hear, hear.) As to the purses themselves, I shall put them with the sword; and they shall go down together from generation to generation, to commemorate the kindness of the ladies of Essex. (Loud cheers.) My health will not allow me to say more. Again I return you my sincere thanks for the honour you have conferred upon me by so magnificent a present. My Queen has rewarded me by entrusting me with a commission; and I will prove my gratitude by showing that it is in safe keeping." (Much cheering.)

DISEASES OF APRICOTS.

NEXT in order, I will take this most valuable fruit, and point to features connected with its insect enemies and ailments.

First, the *Red-bar Moth*, the eggs of which are found attached to the principal branches, and may be most advantageously hunted out and destroyed about the period at which the Apricot buds begin to swell. I may here observe, that from these eggs proceed that destructive caterpillar which curls the leaves up in

bundles in June, and, indeed, destroys a great proportion of that foliage on which the formation of the next year's blossom-bud depends, as well as the welfare of the present crop. These eggs are of a whitish colour, and oval; it would take a dozen of them to cover the surface of a sixpence. These must be destroyed with the utmost assiduity, if healthy foliage is to be expected; and without this it is vain to expect any high degree of success; for if fruit are ripened, they will assuredly prove deficient in flavour, and the blossom-buds in the ensuing spring will in many cases fall off. These little nestlings are readily destroyed, one crush of the thumb-nail being sufficient. By following this practice up closely for a couple of years, it will be found that the trees occasion little trouble afterwards; the whole breed will be well nigh extirpated.

Next in order, in all probability, will come *the curl*, or gathering of the leaves in clusters, before adverted to, and which will proceed from the hatchings of any eggs which may have escaped the vigilance of the searcher. Pick the eggs as carefully as we may, the chances are that a few will be left, and these will, perhaps, prove sufficient to cause serious damage if they be suffered to pursue their depredations undisturbed. The only plan with which we are acquainted, is to unfold the clusters of leaves, and to destroy the caterpillars; by no means, however, to pick off the infested leaves wholesale. This process may need repeating in a fortnight or three weeks after the first performance, as there is commonly a later hatch of the little rogues.

We come now to the *Aphides*, which sometimes attack the young shoots of Apricots. They do not generally commence operations on the young shoots as soon as produced, but rather on the later and grosser growth; in fact, about the period that the Plums become infested, which frequently happens in July. I imagine they are the same species of fly which attacks the Plum, but of this I am not sure; indeed, there may be more than one kind, but the kind which most commonly attacks them is of a bluish ground colour, and looks as though the powder-puff had been exercised over its body. These, of course, are best combated by tobacco-water; and when it is only a few straggling shoots that are infested, dipping in a bowl may be had recourse to, as economising the tobacco; otherwise, the tree may be syringed all over. Sometimes a few of the proud foreright shoots only are occupied by them; and as such have to be removed, the best way is to cut out such as are not wanted, entirely, and to cast them in the fire.

The *Mildew* is apt to present its unwelcome face on some soils, and generally during the droughts of summer. The best plan is to pick off the first symptoms as they appear, unless much of the foliage is attacked; and on the heels of this, to dust the tree all over with sulphur, first syringing it with tepid-water in which soft-soap, at the rate of nearly one ounce to a gallon, has been dissolved; this will cause the sulphur to adhere.

The Earwig (*Forficula auricularis*) is a great pest of the Apricot when the fruit is ripening. This is a night wanderer, and those whose duty it is to entrap them must plan their matters accordingly. These scamps do not seem to provide, instinctively, any fixed residence, for they will readily take to "any port in a storm," if possessing the requisite conditions, which would appear to be snugness and an immunity from the storm. Thus our great Dahlia men are in the habit of suspending those small garden pots, known as "thumbs," over the Dahlias; the pot inverted to keep out wet, and a little dry hay, known as "rowen," or dry moss, stuffed inside for a bed. But we have found linen rags and pieces of calico a better thing still; and attention was first drawn to this fact, by the circumstance of

observing that clothes drying on the hedge were, if left out at nights, much resorted to by both Earwig and Woodlouse. My better-half, who is somewhat observant in these things, and who loves the garden as well as the laundry, has often impressed this on my mind; and, indeed, it is by watching closely the natural habits of these garden enemies that we must hope to discover great facts. Some persons have suggested the use of a rope dipped in gas-tar, and fastened in a horizontal line along the bottom of the wall; it is said they cannot cross this: I have not myself practised it, but should doubt its efficiency. It is necessary, however, that what Earwigs may be on the trees should be destroyed, or expelled, previously. I think it would be well to have some "thumb" pots made specially, without holes in the bottom, for whatever plan we adopt, immunity from moisture must be the chief condition. It is not improbable that water as hot as the trees could bear (say 120°), pumped heavily on the trees by a garden engine, would speedily dislodge them, and cause them to fall on the ground below, where, of course, they should be destroyed.

The *Oniscus*, or Woodlouse, is another serious depredator, as bad as the former, and the trees equally liable to them. Gas-lime has been recommended to expel them, but the fact is, we cannot use any nauseous matter all over the trees at the period of their depredations, which is, indeed, the ripening period. Like the Earwig, this insect is particularly partial to dryness, and especially to heat. I have been much plagued in bygone years with them in my Mushroom-house; but about seven years since I hit upon an expedient, which has saved me completely since. At the end, where the fire enters, there is a corner so hot that we cannot cultivate either Mushrooms, Sea-kale, or Rhubarb; this I have partitioned off two feet in breadth, and a lot of chopped sticks are thrown in the bottom, mixed with cut logs of decaying timber with the bark on. Here Woodlice take refuge, being very partial to the decaying bark of old logs; and here, once a week, we pour scalding water from the boiler; this settles them with a vengeance; indeed, it has become more matter of ceremony than ought else, as we seldom see a Woodlouse. If the readers of THE COTTAGE GARDENER can seize on a useful idea through this apparent digression, it will be well.

And now, amongst ailments peculiar to the Apricot, let me point to a well-known and much-lamented fact, that of whole branches *decaying suddenly*. Many long heads have studied this evil, but I am not aware that any solid conclusion has been arrived at concerning it. Some have attributed it to the use of improper stocks; but this I dispute. Had the stocks in use for so many years past been so uncongenial to the habits of the Apricot the whole family would have been extinct by this time. Besides, if a stock is inimical to the habits of a given fruit-tree, is it not a fair inference that the evil effects would be manifested through the whole system of the tree? We have known trees, in former days, worked on what was then called "Commoner stocks," decay in this manner; and just the same results when worked on the Musclem Plum, which I imagine is the stock now very generally used by nurserymen.

My opinion is, that the Apricot, when young, is too much pampered, is forced into a luxuriant growth unknown to it in a state of nature; for, of course, deep digging and high manuring are unknown to it in its wild state. The consequence of this is, that select a score trees when you may from a nursery, it is probable that three-fourths of them are unequal in their shoots; and that one side of the tree, when trained, is worse represented than the other—one or more lean shoots which have been cheated out of their supplies by their huge-stomached neighbours. The Apricot appears to

be peculiarly liable to that kind of vegetable constriction, which not unfrequently, and in many plants, causes one branch to pine, or to remain what we call hide-bound, through the gluttony of another. May we not call this vegetable atrophy?

If I be at all right in this argument, it will show that more pains ought to be taken over the equalisation of the sap in pruning trees; that there is a necessity for reform, and that this reform *must begin in the nursery*. However, since we may have to wait for such reforms, let me, in the meantime, impress on the readers of *THE COTTAGE GARDENER* the necessity of a strict course of summer's management; a most liberal use of the finger and thumb weekly, during June and July.

I must here direct attention, as in the case of other trained fruits, to preventive measures during the period of rest. The walls should receive a general wash, as also the wood of the trees; not a crevice but should be filled with this dressing.

Before concluding these papers I will again refer to this; in the meantime I may observe, that as the Apricot is amongst the most excitable of our fruits, and comes early into blossom, the dressing should as much precede that of later blossomers; if done before the beginning of February it will suffice. Apricots suffer much, when in a high bearing state, from weakness in the staple of the soil; they should have a generous and slightly adhesive loam, containing a good deal of fibrous matter; and as for animal manures, I am of opinion they are prejudicial mixed with the soil; a fifth portion of decaying leaves would be better. If they require manurial applications when in bearing they can receive a little liquid-manure occasionally. One thing more. I would recommend that a surface-dressing be given them every alternate year, composed of half loam and half old manure.

R. ERRINGTON.

BLOOMING SCARLET GERANIUMS IN WINTER —CUTTINGS FROM THEM.

WHEN a broad principle, or such habitual practice in gardening as amounts, seemingly, to a principle, is in danger of being violated, through the recommendation of friends or foes, or is likely to be undermined by the insinuating advices of a right-hand man, your own guardian should step in to warn you from the danger of following such advice; to tell you of the dangers which may be apprehended from following that particular course; to urge such failures against the point as past experience could indorse; and to take all lawful and friendly means to prevent you from this, and such other experiments, as tend to undervalue the force of a principle. Yet, although a principle may not have been involved in the question, the right-hand man should not take offence from the interference of the private guardian, much less he who may have advised without claims for being considered as a right or left-hand support. Now, as that *should* be so, whether it *be* so or not, without waving my lawful claims, I hope I shall never think the worse of a man for advancing his trust guardian in the "teeth" of my settled opinion, or in the face and nose of my deliberate advice—"My firm opinion is, and has been for some years, that a greenhouse treatment in winter is not a sufficient rest for an old Scarlet Geranium, in order to get more than the common use out of it, namely, a good show of bloom during the summer months; and that when more is aimed at, a more perfect repose is essential for it during a long period, say from the end of November to some time in March, or later still, if the plant could be kept from pushing naturally." (See page 236) Acting on this settled opinion, but without going the length of giving a deliberate advice, I said that spring cuttings

could be had from old Geraniums which were preserved during the winter, if the preservation was on a true principle. I say "a true principle," because I am well aware that we often call that a principle which is merely a seeming principle.

This assertion, about such cuttings, has been contradicted in these pages, and very properly, too, for most of us gardeners of long standing have been aware of the danger of cutting old plants for "stock" while they were at rest, as we said, and I have seen more mischief than enough done that way myself, but without my admitting the possibility of a principle being violated in the process. Principles are like Scotch Thistles—you cannot touch them against the grain with impunity. It is not founded on any known principle, that if you take cuttings from a Geranium at rest, that three-parts immediately below must necessarily die in consequence; yet we know such deaths take place in ninety-nine cases out of a hundred; but the fact is this, we did not hit on the principle of resting our plants properly. A greenhouse is too exciting for them, and a cold pit, or frame, is too moist for such a purpose. We preserved them there, it is true, but we did not rest them on principle. Now, however, I rest my plants as they ought to be rested, and I cut them with impunity any day in the year. Just now, I am under an engagement to cut a specimen of the *Lady Middleton* Geranium, which I value as the "apple of my eye," on the 10th of January, before this is in the hands of the printers. The specimen is large enough for me, and old enough to do without cutting-in at all, if I had more room for it; but from this time forward I must cut it back, more or less, every year, if I do not kill it now with this rash experiment. I cut the fellow to it—"the match plant"—at the beginning of the severe frost before Christmas. The frost may have saved it, however, for every cut is now as sound as a nut: but if it is true that "a green Yule (Christmas) swells the churchyard," this greenest, wet, and foggiest Christmas we have had for years may be the death of my most favoured specimen.

I could not find it in my heart to cut the two at the same time, that is, one month later than I cut them in 1854, because this one was then in full bloom, although I ought to have done so, a principle which we all recognise in these days, that of inducing a plant, or tree, to depart from its natural course, not all at once, but by slow degrees. In 1853, these plants were cut back in October, and as late as the end of November, in 1854. This time one has been cut after the middle of December, and the other just before the middle of January, thus bringing them round gradually to that state, which, I suppose, will enable them, eventually, to flower during the dull months of winter with as much ease as if it were the height of summer.

Why the last one was to be cut on the 10th of January, above all other days, is this—after cutting the first, in December, one of my old pupils called and begged very earnestly to have the cuttings which I would throw away, but he had no hotbed ready just then, and I consented to wait so long, but not a day longer than the 10th instant. Now, I am rather pleased than not, that there is the distance of one month between the two plants in the time of cutting them back in winter. I shall keep to that time in future, so as to have two strings to my bow, for I have not the least idea of their being injured in the smallest degree, much less killed back so far, or altogether, by being pruned any day from November to March. In a dry Vinery, where late Grapes hung all the winter, they would be equally safe, and they might be cut whenever one took the fancy to do it; but then they would not be *rested* on principle, the juices would be in active circulation, although little or no additional growth might be apparent on the surface. In a common greenhouse the air is kept too

moist, or, rather, too much moist air is admitted, to allow of that degree of rest which is safe for cuttings being made of these old Scarlet Geraniums in the dead of winter, and when the frost and fires come, the necessary degree, for the safety of a collection of plants, is actual forcing, as compared with absolute rest to the plants in question. Hence the danger of taking winter cuttings from these plants when kept in an ordinary greenhouse. If they are in a cold frame, the danger is greater still, from the difficulty of arresting the effects of damp on a recent wound if once it begins to fester, and if the plants are in a damp cellar, or a dark room which is damp. The danger of making new wounds, and of stopping old wounds which were made when the plants were taken up is greatest of all. Hence the reason why I put so much stress, last autumn, on keeping some old *Tom Thumbs* entirely free from wounds, by storing them at their full length of shoot, and by stripping off all their leaves, in order to keep the young wood free from their influence, either as acting on the juices, which ought rather to be then at rest, or, by decaying, would help to fog off such of the parts as lay near them. From this day forward, depend upon it that all such *Tom Thumbs*, and other Scarlets, may be cut for cuttings without injury, provided the plants have been rested as insisted on, and are in a perfectly dry room or cellar; and unless they are under such circumstances, it is just as dangerous to meddle with them, as has been said; but there is no danger in leaving them at their full length until the middle or end of April, when, if the shoots seem too weak to form the frame-work of a healthy specimen, they may be cut back as far as you wish, and then be in good time for striking, to add to the young stock, and beds and borders in the autumn, when summer flowers are going off.

After all my advices in the autumn to preserve old Geraniums entire, and after taking such pains with the *Tom Thumbs* I had from Mr. Walter's garden, I have a sad tale now to relate. The autumn was so damp and mild at the time those plants were removed, that I chanced them for a while out in the garden. After stripping them of all their leaves, I laid them in by the heels in my own borders, intending to keep them out as long as it was safe to do so, in order to make the winter rest all the shorter for them, for we often have the seasons so mild that we might safely trust such plants out till Christmas, or nearly so, but this season the frost caught me napping, and, before I dreaded any harm, my bare Geraniums caught it desperately, and I was forced to cut them all back, as is done in ordinary cases. Therefore, my own experiment has failed with me before I had hardly entered on it in earnest; and I must trust to such conclusions as I expected to result from it at the hands of those who have been less rash and more fortunate than I have been. However, the danger of cutting down such Geraniums late in the autumn, where no means are at hand for drying the wounds properly, has thus been made more apparent than ever it appeared to me when I was in full practice; and I find that it is necessary to look over them often, to stop the progress of damping lower down, and this with other plants having just the same treatment, but are without any wounds, which are yet as fresh and sound as they were the first day I put them up for the winter treatment.

The only use of this tale is to warn those who have cut down Geraniums in store to look closely after them for the next six weeks, at least; to cut off, at once, every end which is not perfectly sound, to stir the soil about them so as to keep the surface from becoming mouldy, to remove every dead or dying leaf as soon as it is seen, and to see that the outside of the pots are not getting into a foul state, which is the most dangerous part of all. This supervision is as necessary in the cold frame or pit as it is in the stove or cellar.

Under the stages of the greenhouse a muck pie is just as destructive to the health of store plants in winter, as is the open foul ditch to the master plants in the dog-days. It is all very well to "push forward" improvements in the garden while the weather is fine, and do all things "they say" in *THE COTTAGE GARDENER*; but if the store plants are thus neglected at the proper time, my word for it, things will not be so pleasant when you come to plant out the beds, and find that so many plants have "fogged off," and that the purse must be thinned to make good the loss, which a timely look over, and a look, from time to time, might as easily have prevented, as I can write about it—and now is that time.

To return to the subject of preserving old Geraniums, and to rest them solely with a view of bringing them round, by degrees, to flower from October to March in a common greenhouse. The practice is worth as much attention with some families in the country as any one thing with which the gardener is entrusted; and that it can be done, I am as fully convinced as I am that Roses blow in June. Why, the very plant which blossomed with me down to Christmas, and had every flower picked off that day, threw up fifteen fresh trusses, which were in full bud, and some ready to open, on the 10th of January, when the plant was cut for the season, yet the plant had no more stimulus than the shelter of a glass roof—a much cooler place than a common greenhouse. Yet that plant was only rested one summer. After three summers of the same treatment as that of last summer, it will be as *natural* for this plant to bloom at Christmas, as it is now for all the early Vines over the country to flower or fruit about the same time.

The only question with me is, whether I did right in allowing my plants to flower for six weeks from the middle of May, before I set them to rest. It was a fancy, merely, for which I can offer no explanation that would be satisfactory to a scientific mind. We all know that many kinds of this race flower very strongly at first, then rest awhile, then begin again, and continue to flower till late in the autumn. This is the habit of a great number of greenhouse Pelargoniums, therefore, all I aimed at, was to take advantage of this propensity, and begin, for the first time, to rest the plants just at that stage where it was most natural for them to rest. I know some flower-gardeners who also take advantage of this habit with their old plants; they keep them over the winter, plant them out very early, and after the first bloom is over they root them up, to allow of sufficient room for young plants which were planted much later between the old ones. All young plants take more time between planting and flowering than old ones, therefore, the old plants are put in to bridge over that period, but young plants flower more evenly after they begin in earnest than old ones, and are only at their prime when they are arrested by cold nights in the autumn; whereas, old plants either run too much to leaf in the autumn, or else make the surface of the bed so wild and uneven, by their unequal growth, as to render the flowers less telling in effect.

I had one more reason for allowing the plants to bloom at first starting off; they were big enough for my purpose, and if I kept them from blooming as they did, they might grow too big for my purpose; but that is mere conjecture. All I can say with confidence is, that they answered my expectations, by continuing in bloom so late; and, indeed, more than I expected. I have not yet determined if I shall allow a first bloom next summer, or stop them in the bud from first to last; but I have firmly resolved to carry out the experiments as far and as long as they can be pushed; and I hope to live to see the day when Scarlet Geraniums will be as easy to manage to bloom in winter as Camellias and Rhododendrons; and if any one can assist me, by telling

anything they may have seen, which bears on the question, I shall be thankful; but I want no ideas or surmises—my head is too full of them as it is.

D. BEATON.

VIGOROUS CLIMBERS ON RAFTERS, AND ON ROUND TRELLISES IN POTS.

COBÆA SCANDENS.—"A Regular Subscriber turned out two strong seedling plants last season; one against a south-wall, the other against the back wall of a greenhouse. The first bloomed the earliest of the two, and most freely. The other has grown very vigorously, but has not flowered much. It covers most of the back wall and three rafters. What should be done to secure bloom in the spring? Should it be quite cut down, or only pruned?"

This is just one of those simple matters about creepers which beginners say we are too apt to overlook. I have several letters now before me, to which I will shortly allude, where failure, or very limited success, has been owing to not clearly perceiving how flowering shoots are produced; and, consequently, the kind care that is given is often prejudicial rather than otherwise. One great difficulty is, whether the operator should prune back to a few buds, removing the young shoots, or whether these should be so thinned out that the strongest and best ripened may remain. In the case of these that will to-day meet with a little attention, it matters not greatly what plan may be adopted, *provided a sufficiency of well-ripened buds are secured*. As most of our readers are familiar, in some measure, with the culture of the Vine, the treatment of that plant will give the key-note to the management of the climbers referred to.

Secure a long, well-ripened shoot, with plump, prominent buds, and from these buds flower and fruiting shoots will be produced the following year. Cut back these shoots the following season to a bud or two, and, provided these have been properly ripened, flowering shoots will again be produced. These explanatory remarks will apply to all those I intend to mention. The latter mode will generally be found the best for plants trained round trellises that are to be kept on year after year.

The Cobæa flowers very well as an annual, if sown early, and planted in a warm place out-of-doors. If such plants are cut over, from a yard to two yards in height, and taken up and protected before frost comes, such will bloom more freely the following season than seedlings. The reason why the plant in the greenhouse bloomed so sparingly was owing to the deficiency of light it received against the back wall. Unless the house is very open it will not bloom much against that wall, unless from shoots that come from buds near the top of the house, which would hang down along the back, and bloom freely enough. If it be desirable to keep the back wall green, the present shoots may be allowed to remain so long as the foliage hangs. By no means think of cutting the plant down. All that will be necessary will be to cut back the greener part of the shoots at the top of the house and along the rafters. The plant should be kept as dry during the winter as will just prevent its flagging. If there is more room on the rafters to cover, the shoots may be allowed to grow on, and these will bloom early. It would be advisable, for future management, to have only one shoot to each rafter. Provided that shoot has had a sufficiency of sun and air to ripen its buds, every side-shoot that comes from it next season will produce flowers in abundance. The plant is not at all suited for a round trellis, as the shoots grow a considerable length before they begin to show bloom, and then the bloom-buds come as long as the shoots are allowed to lengthen.

These shoots are, therefore, most in their element when dangling several yards in length from a lofty arch or rafter. When winter comes, cut these dangles back to within a bud or two of their base, and you will have similar shoots again next season. A primary shoot along the top of the back wall would furnish you with dangles along it in a similar manner. By securing main shoots in this way, at first, the culture of the plant would be as simple as growing a Vine on the spur-pruning system. I am almost tempted to introduce this old plant again into the lofty conservatory, as most people admire its bell-like flowers, changing from green to purple, and produced in such profusion. The only thing to be guarded against is its monopolising tendencies, as a plant would soon take possession of a house. Instead of planting it in a border in such circumstances, it would be better to place it in a large pot, tank, or make a small pit for its roots, about two feet square. That, with surface-dressings and manure-waterings, when necessary, will be sufficient for a plant destined to cover two or three ordinary rafters.

IPOMÆA LEAII.—"I have seen this fine on the roof of a greenhouse. I have no room for it there, but have tried it in a pot, round a trellis, six feet high, and eighteen inches in diameter, but with no success. I commenced with half-a-dozen shoots, and these soon covered the trellis with healthy foliage, but no flowers." Perhaps you may be more successful next year, if your shoots were well ripened. I think, however, you erred in starting with so many shoots. I have had fair success by the following mode:—A strong, two-year-old plant was selected, and placed in a fifteen-inch pot. The plant was pruned back almost to the collar. It was placed in a warmer situation than the greenhouse until the end of April. Numbers of little shoots made their appearance; these were all rubbed off, with the exception of one,—the strongest. That was brought from the centre of the pot to the outside of the trellis, and trained round it, leaving about a foot between the volutes. When the shoot got towards the top it began to bloom, showing that the bud producing it had been well ripened the previous year. Another plant, treated exactly aliko, did not show bloom, but made a fine, healthy plant, with fine foliage from top to bottom. After the shoot had turned over the top a little the extreme point was pinched out. The plant was then kept as much in the sun as possible, and water was given just to keep the foliage from flagging. In the latter end of August, and during September, the plant stood out-of-doors, and here the foliage was frequently syringed to keep off Green Fly. One word, however, as to stopping the shoot. It is better to let it go a yard or two over the top of the trellis, and then stop it, in preference to stopping it so early as to cause side-shoots to break from the buds. Towards the end of September, or the first fortnight in October, it may be cut back to the height of the trellis, or thereabouts, without starting the buds.

Under greenhouse treatment the plant will be deciduous, or nearly so. Any time during the winter the shoots should, therefore, be well washed with soap and water, as a preventive against insects, especially White Scale, to which it is very liable. In winter, provided the roots are dryish, but not dry, the plant will be safe in an average temperature of from 40° to 45°, with a rise from sunshine. As the spring advances the buds will begin to break, and if all are allowed to come, you would have a forest of weakly shoots. Go along your main shoot, and select the strongest buds every two feet or eighteen inches apart, and rub the others off; and if the plant, as advised, was well hardened and ripened the previous autumn, these young shoots will furnish plenty of splendid blue flowers. When the flush is over, the shoots may be shortened, to

ripen the buds at the base; water be diminished as much as possible; all possible sunshine given for maturation; and if cut in within a bud or two in winter, and cleaned, the plant is again ready for a future campaign. In a greenhouse, the plants bloom well at the top of the house, where it is hottest. When grown and bloomed on a trellis, in such a house, the plants, as soon as the buds begin to move much, should stand in the warmest end; and if they could receive the advantage of a higher temperature for a month or two then, such as in a Vinery, or Peach-house, at work, they would like it all the better. The plants will do well in two parts loam and one peat; and if kept several seasons in the same pot, a good top-dressing of cow-dung, frequently repeated, will give strength enough.

MANDEVILLA SUAVEOLENS.—“A Constant Reader has tried this in a pot with no success. He got a strong plant started with a number of shoots, fastened these to a large, round, wire trellis, so as to cover it well with healthy shoots; but has got no bloom.” I have not grown this in a pot, so as to flower it. If these shoots are well-ripened, the strongest shortened, and the weak ones cut out, it is likely there would be short, flowering shoots produced next season. A plant, in a large pot, trained round a trellis, and covered with its sweet flowers, would be a most beautiful object, far transeending in massive grandeur the much-loved *Stephanotis*. Though I have not so grown it, I think I clearly see the way to attain success. The first element of that success should consist in throwing the strength of the plant into one main stem, and being content to wait two or three years for a mass of bloom. I have frequently spoken of the plant at Stockwood, trained as one strong shoot along a wire, and furnished with spurs thickly studded. I would make this the ground-work of my treatment when grown in a pot.

Here, then, is a little plant, some eighteen inches in height, just come in from a nursery. It is no use putting that on a trellis next summer. Do every thing to encourage it to grow, by repottings, good positions, suitable soil, &c., as the more head produced, the stronger will the stem, or collar, of the plant be, and the better supplied will it be with healthy roots. I would, at this stage, trouble the plant very little in the way of training. Before the plant started afresh in the spring, I would cut it back within a short distance of the collar, and, if still rather weak, would let it ramble another season. Supposing, however, that the plant is strong, it will push vigorously. Several young shoots will appear, and the strongest should be selected, and the others removed by degrees. The one left should be brought to the outside of the base of the trellis, and trained round it in volutes about a foot apart. When it gets beyond the top its point may be nipped out. From the volutes, it will be more likely to break again nearer the top than the bottom. The stopping may go on, provided there is no danger of starting the buds on the lower part of the shoot. Turn the trellis round every other day, and give all the sun-light possible, to harden the wood of the shoot. A sunny spot, out-of-doors, after the end of August, would be desirable for six weeks; whilst there, frequent syringings in the evening will keep Red Spider at a distance. Any place will do in winter, where frost is excluded. Before the fresh growth takes place in spring, unless the shoot is strong and well-hardened throughout, it would be advisable to shorten it to about half its length, less or more, according to strength and ripeness. When the buds start again, the terminal one should be trained as before, as a continuation of the main stem. This stopping will cause the buds on the lower part to break more regularly. Shoots from these, about six inches apart, will be thick enough, and these most likely will yield flowers. Next season, the upper part will be treated the same way, and on this lower part, the many young shoots, having their

points pinched off in summer, may be cut back to a bud or two in winter. The base part of the plant will thus be first furnished, and when the whole stem is thus furnished with spurs, the plant will be as easily managed as a Vine-stem. A fifteen or eighteen-inch pot, well-drained, supplied with loam and peat, and mulched with rotten cow-dung, would, I presume, keep such a specimen in good health for several years. One essential of success would be, having the buds well ripened, by abundance of sunshine, before pruning. As I have stated, this treatment in a pot is theoretical, so far as I am concerned; but I have no doubt it would answer well.

PASSION-FLOWERS ON TRELLISES.—“An Amateur wishes to have *Cærulea*, *racemosa Cærulea*, *Colvillii*, *Billottii*, &c., on round trellises, about five feet in height; the pots to be set in large vases, about three feet in height, and to have the shoots hanging down over the pot for a couple of feet, and a mass of flowers from thence to the top of the trellis. He can get a thicket of shoots and leaves, but flowers only here and there.” A little time and preparation will be necessary to complete success. When the Passion-flower is young and vigorous, the young shoots are apt to extend some distance before the flower-buds appear. To have masses of bloom on stubby, short shoots, from two to three feet in length, the plant must either be somewhat crippled by age, or stunted by diminutive feeding-ground, and a sparing supply of water until the flowers appear. Keeping this in view, it will be important to start with a single shoot; train that round the trellis, leaving spaces of about one foot between; ripening that shoot well, and cutting it back to the top of the trellis, if strong enough, as it is likely to be, before winter. The buds along this shoot will all start, mostly, next spring, but that will give more shoots than will be required. Thin out so as to give room. Be rather sparing of nourishment until the first flower-buds appear, and then give more. As the plants get older they will bloom more profusely, and the young shoots will not be so luxuriant. All that is wanted is to cut back these young shoots to within a bud or two of their junction with the main stem every winter; and if these buds were well matured, the shoots from them the following summer will be sure to be covered with bloom. A fifteen or an eighteen-inch pot will support a plant for a number of years, if manure-waterings and rich dressings are given in summer. It should have little water in winter. If, after the shoots are fairly started, any should be much more vigorous than the generality, these vigorous ones should be stopped, to cause them to make two or three, and thus the strength will be equalised. When treated in this way, little more training would be required than fastening the main stem at first, as the most of these flowering shoots will look best suspended.

TECOMA JASMINOIDES.—“H. complains he can make nothing of this.” It requires a great amount of sun-light to ripen its flower-buds. I have had it best on the roof of a house close to the glass. When over arches, three or four feet from the glass, it did not do so well. When close to the glass, I have had it equally good from the buds of a long, well-ripened young shoot, and an older shoot, spurred, as I have mentioned above for the *Mandevilla*. I have tried it both ways round a trellis, and with little difference as to success, though the older-spurred shoot was rather the best. Neither will do much unless the buds be well-ripened by plenty of exposure to sunlight. Young shoots require more stunting as the buds are expanding than older wood. It makes a good neighbour for the *Mandevilla*, though it does not bloom quite so freely, unless extra matured.

R. FISH.

ORCHIDS BEARING COOL TREATMENT.

(Continued from page 200.)

DENDROBIUM DENSIFLORUM.—When I. Allcard, Esq., resided at Stratford-le-Bow he had a very fine collection of Orchids. It was there I first observed the above fine Dendrobe treated as a greenhouse plant. It was a fine specimen, perfectly healthy, with leaves as green as a leek, and had very prominent flower-buds. In consequence, I can confidently recommend it as one that will bear and thrive well with a cool treatment. It is a native of the hills of Nepaul, and has large, dense spikes of yellow flowers. It does not flower, however, till it has made strong pseudo-bulbs, at least a foot long, and proportionably stout. In its native place it inhabits shady, moist woods, therefore a similar position in the cool house will be necessary. Further, to recommend it to cultivators, it forms a handsome plant even when out of flower, and is evergreen. It requires to be grown in a pot well drained, and in light, very fibrous peat.

D. DISCOLOR, *syn. UNDULATUM* (Wavy).—As this curious species is a native of New Holland, it necessarily follows that it will bear a cool treatment, especially when at rest. It has a most singular appearance, with very stout, erect stems, four feet high, and much swollen in the middle. The flowers are produced at the ends of the pseudo-bulbs, in racemes, each containing upwards of a dozen large, yellowish-brown flowers. The lip or labellum is of the same colour, with five deep wavy plates, of a light violet-colour. It should be grown in a pot, in open turfy-peat, and kept moist when growing, both at the root and over the foliage.

D. MONILIFORME (Bracelet-formed).—This beautiful species has been, hitherto, by all writers, including myself, described as requiring great heat. I am now convinced that treatment is quite wrong. In a cool house it grows, it is true, more dwarf; but, nevertheless, it thrives there and flowers more abundantly, with its colour much heightened, which colour, in a cool house, is a deep rose with a pure white centre. It requires a compost of chopped sphagnum and fibry-peat, well mixed with choppings of wood and small pieces of charcoal. As it is a native of the warmer parts of China, it should have, when growing, the warmest part of the cool house, and plenty of water overhead.

D. NOBILE (Noble).—This well-known fine species needs no description. I have proved it to be sufficiently hardy for a cool house, providing it has, like the preceding, a warm corner in summer, to perfect its growth. It then makes stout, flowering pseudo-bulbs, whereas, in too great heat they are long and lanky, and flower very middling indeed. It requires the same compost as *D. moniliforme*.

D. SECUNDUM var. (Side-flowering).—A variety from China. The species is from the Malaccas, and is much more tender. A very handsome variety, with deep, rosy-purple flowers, densely placed on one side of the top of the pseudo-bulb. It should be grown in a pot in fibry-peat, well drained.

D. SPECIOSUM (Handsome).—A very strong-growing species from New South Wales. Mr. Backhouse, of York, saw it growing on the inaccessible side of a lofty rock, not far from Sidney, where it flowers freely. In this country it has not bloomed well for many years, but now that its culture is better understood, it flowers every year, at various places, more especially the large plant in the gardens, or, rather, I should say, that was in the gardens at Chiswick. The plants grew freely enough everywhere, but did not flower, because they were cultivated in a too high uniform temperature. In a greenhouse, freely watered when growing, and kept quite dry when at rest, it will flower as regularly as any other species. The flowers are produced at the top of the pseudo-bulbs, in dense racemes, from twelve to

eighteen inches long; they are of a pale-yellow-colour, spotted with pinkish-red.

D. TETRAGONUM (Four-angled).—A species from Moreton Bay, in Australia, consequently, a fit inhabitant for a cool house. It is a rather handsome species, with square pseudo-bulbs, thin at the base and thicker towards the extremities. The flowers are produced towards the top, and the petals and sepals are yellowish-green, margined with brownish-red; the labellum is pale yellow, streaked with crimson.

There are several more small species from New Holland, all of which will grow in a cool house, but they are scarce in collections, and even in sale nurseries. Messrs. Loddiges, some years ago, had a considerable number of them, but where they are now (echo says, where?) it is difficult to tell.

I am inclined to think there are several other species of *Dendrobium* that would thrive and flower well with a cool treatment, especially *D. carulescens*, *Gibsonii*, and *Paxtonii* but as I have never tried them, I fear to recommend them. If any cultivator has a spare plant of any of these he might try it for one season, at least.

EPIDENDRUM AURANTIACUM (Orange).—A species from Guatemala, with rich orange-coloured sepals and petals; the lip is the same colour, with a few delicate streaks of crimson. There is no doubt but this is a moderately hardy species; for Mr. Skinner, its discoverer, says, "That it is subject to great extremes of heat and cold."

E. RHIZOPHORUM (Root-bearing).—A tall-growing species from Guatemala, something like, both in habit and flower, *E. cinnabarinum*. It is, however, much hardier than that species, and will not flower in too much heat. The best-managed plant I ever saw was under the care of my friend Mr. Bassett, gardener to R. S. Holford, Esq., at Weston Birt, near Tutbury, in Gloucestershire. He cultivates it in an empty flat basket, bending the shoots backwards and forwards till the basket is thickly covered with stems and roots, only allowing the extremities of the shoots to point upwards. The plants are grown in the coolest house, kept no warmer than an ordinary greenhouse, and much drier than one in winter, and, perhaps, a shade more moist in summer. So managed, his plants flower profusely, and the plants are kept within bounds. The flowers are produced in terminal umbels, and are of a rich, brick-red colour, lasting a long time in bloom.

E. SKINNERI (Mr. Skinner's) *syn. Barkeria Skinneri*.—A very elegant species from Guatemala. This is a very pretty and interesting species, almost always spoilt by being grown in too much heat. Flowers pink, continuing a long time in flower. It is best cultivated in a basket filled with sphagnum, and suspended from the roof, where it will have plenty of light and air. If excited to grow in winter the shoots are almost sure to perish.

E. VITELLINUM (Yolk of Egg).—One of the most splendid of Orchids, native of Mexico. I saw a plant of it in flower, at Mr. E. Wheeler's nursery, last month, in as fine perfection as possible, and that plant has been constantly growing in a cool house. Most cultivators complain that this is a delicate difficult-to-grow plant. I have not the least doubt this delicacy of constitution may be fairly ascribed to its being grown in too much heat. There are two varieties, the lesser and the major, both beautiful, but the latter has the largest flower. The flowers are of a most clear, brilliant, scarlet-orange colour, and are produced in spikes from the top of the current year's growth. It should be grown on a block, and that block set among and half buried in broken potsherds in a pot. These, when they are growing, should be kept constantly moist; they then send up around the plant a constant moist atmosphere, which helps the plant to grow amazingly.

I would recommend the following as worth a trial in the cool house: — *E. alatum*, *E. calochilum*, *E. cockleatum*, *E. Hamburii*, and *E. macrochilum*. I have no doubt they would grow well there. T. APPLEBY.

(To be continued.)

FRUIT-TREES PLANTED OUT *versus* IN POTS.

I WOULD be the last man that would occupy the pages of a public journal with a personal controversy, consequently, I would not have replied to a late attack, in THE COTTAGE GARDENER, on my paper condemning Orchard-houses in the general sense they were introduced to the world some two or three years ago; but, as some misconception may have arisen on the matter, I again resume the subject; and, following "*Pyrus Mollis*" through such parts of his paper as the public will derive information from, beg here to say, that my condemnation of Orchard-houses, or, rather, the keeping and forcing large quantities of fruit-trees in pots, does not arise entirely from what I have seen in Kent; neither do any of my observations relate to this county alone, except when I say so. Having had a fair share of experience in five other counties besides, and these mostly widely apart, I speak not altogether from theory. True, I have not seen the Orchard-houses in Russia your correspondent speaks about, neither do I wish to do so, at present. I am, also, a stranger to those in Germany and the Pyrenees, except what I learn by reading; but I have some little knowledge of the dwarf fruit-trees in France, which, certainly, did not improve my opinion of potted fruit-trees in general. Certainly, the Orange-trees at Versailles, and some other of the Palace Gardens, were remarkable objects, but more by their numbers, size, and general resemblance to each other, than by any other feature worth copying. But what of that? I did not see any fruit on them; and though the quaint cut Yew and Lilac-trees are certainly remarkable objects, as examples of a certain style of gardening, I did not see anything in the way of cultivating fruits that was worth copying; and, with the exception of Greengage Plums and Melons, I did not see any fruit in the Paris markets of last August that were equal to that of Covent Garden. This is, perhaps, foreign to the subject; only, as "*Pyrus Mollis*" may have been there more recently, perhaps he will tell us where the fine potted fruit-trees were. There were plenty of Oleanders, Oranges, Myrtles, and sundry other flowering plants, especially Asters, many of which were objects of excellent cultivation; but I felt disappointed at the quality of the fruit in general.

The first Peach-trees in pots I remember to have had anything to do with were in 1833; but these had been in that condition some years, and the system, even in a remote district, might be traced back, I believe, to the last century. Consequently, it is not a recent idea. The trees I allude to were, in every respect, treated the same as those of the present day, and with much the same result. A tree in a pot large enough for two men to lift was thought to do well if it produced a dozen fruit, and these were rarely more than three-fourths of the size of those grown in the ordinary way. I may add, that the pots were bound round in hay-bands to keep them moist, they being much pot-bound. Liquid-manure was also given pretty often, and the other modes of keeping down insects, thinning the shoots, &c., as is now practised, were all duly attended to, but the produce fell short of that from trees planted out inside a glass-house in the usual way.

As some of the advocates for Orchard-houses advise the trees, in some cases, to be planted out, I here beg to say, that in so doing they give up every claim to a new

invention, as Peach-houses have existed from time immemorial. One of the first I ever saw was somewhat like the so-called Orchard-houses, only it was a lean-to, and the trees on the back wall were trained in the usual way, but those in the front were kept low, but had no other training than pruning and disbudding. The trees assumed a low, spreading bush-like form, and bore very well, though not better than those trained upon a low trellis in a similar situation; and two houses of that description, which existed prior to 1826, were afterwards supplied with wire or wooden trellis; and I only here allude to the matter as showing that trees in a bush-headed form existed long ago.

With the Orchard-planting on the ordinary plan, as proposed by your correspondent, there is little to find fault, because there is little but what has been repeatedly advocated in these pages. One thing, however, might puzzle many—myself for one—namely, where to find five hundred or a thousand good sorts adapted to the district; as I have, over and over again, stated that even where I write from, which your correspondent styles "the Garden of England," some of the most common varieties of Apples will scarcely grow, let alone thrive. For instance, the *Hawthorndean*s, and many others, scarcely produce a fruit that is not spotted or otherwise deformed; and kinds known here to thrive tolerably well do not do so five miles off, and *vice versa*. Where, then, are our thousand kinds to come from? Trials are being made with new kinds, but fruit-growers of long standing are not, like "*Pyrus Mollis*," satisfied with an "eight months" experiment. They know, from sad experience, that adverse seasons mar all their hopes; and, however true to rule a tree may be planted or pruned, a pernicious easterly wind, May frost, or some other atmospheric cause, will annihilate all their hopes.

As Mr. Ferguson has entered very fully into the various points of Orchard-house structure, as well as potted trees in general, I need add no more, believing that Orchard houses, like glass walls, will be resolving themselves into something else. At the same time, be it remembered, I do not condemn the enthusiastic horticulturist from having one or two trees in pots; for they will not only be interesting objects while in flower, but, supposing he has no other mode of obtaining Peaches of his own growth, one so grown will be worth a dozen obtained elsewhere, in his estimation. But to those who put up a house expressly for that fruit, and for Nectarines, which are much the same, trees planted inside, on well-made borders, will yield double the quantity of fruit of better quality, and at less than half the trouble, than a house full of potted plants would do. And if he is ambitious of having variety in their fruits, budding or grafting will easily accomplish that end; and the appearance of trees in full vigour is always more agreeable to look upon than the pot-bound objects recommended by the very few advocates of so-called Orchard-houses. In fact, I think that novelty is all that the latter has to recommend it, and novelty, though of some importance in floriculture, has little weight in fruit-growing.

In discarding pots for stone fruits, I by no means condemn them in all other cases. *Vines*, in pots or boxes, are exceedingly useful and beneficial. *Pines*, too, may be occasionally well grown that way. In fact, until the last few years they have been universally grown so. *Figs*, too, I have seen do tolerably well in pots, they being, like the first-named, gross feeders; but I fear none of us will live to see Covent Garden supplied with sieves of early *Plums*, *Cherries*, and *Pears* from pot-grown trees. The million will, I think, derive but little advantage from that source; and the few ardent spirits who have taken it up will, like those of the Polmaise-heating school, make few disciples; and,

eventually, like other impracticable theories, the matter will drop.

Having extended the above remarks to a greater length than I intended, I have only room to observe, that in neighbourhoods like this, where Orcharding forms an important item in the general cultivation of a district, great diversities of soil are occasionally seen under fruit crops:—from the white, chalky soil of steep hill sides, to the black, peaty moss of the marsh; and, in some places, ground so stony is planted with fruit-trees, that the stones might be shovelled off in cart loads per rod. Some discretion is necessarily exercised in planting these extremes; but the number, and extent of Orchards is so great, that they form, in some parishes, one-tenth of the entire area. Even in the one I write from, it is over one-twelfth; and when it is to be considered that Hops form an item generally as large, or larger, the advocates of spade cultivation will see that their views are carried out here to some extent, as both crops are tilled by hand.

J. ROBSON.

IS THE POTATO MURRAIN INFLUENCED BY FROST?

A CIRCUMSTANCE which I observed, this last autumn, of the effect of frost upon Potatoes is, perhaps, worth mentioning. A plot of about ten or twelve rows was planted on a border in front of a wall with a south-east aspect. On the west side of the plot was a rustic fence, on which a Boursault Rose was twined. Some of the young shoots of the summer's growth stretched over the tops of the Potatoes in the two drills nearest the fence. On the 7th of September a frost, severe for the season, was experienced here, and the leaves of the Potatoes, almost everywhere, were, less or more, affected by it. As the plot of which I have been speaking was exposed to the first bright rays of the rising sun, it suffered more on that account than any other which I had either in garden or field. I found the tops very much destroyed, except the two drills over which the straggling shoots of the Rose stretched, which were entirely untouched, not the slightest appearance of frost being visible on their leaves. I was, in the first instance, very much surprised to see how complete a protection had been afforded by a few stray twigs, certainly nothing equal to what would have been given by a net.

The frosted Potato tops were all dead in less than three weeks, and I ordered the plot to be lifted. On digging, the Potatoes where the tops were destroyed by frost were a mass of disease, scarcely one tuber of any size being sound; whilst in the two drills unaffected by frost all the tubers were sound and good. *There being there not one diseased.*

Now, all the plot was of one kind of Potatoes, planted on the same day, in the same soil and aspect, under the same cultivation, and grown in the same conditions; and where frost did its work, there was disease, and there only.

I had a second plot, growing in another part of the garden, composed of two sorts of *Kidneys*: one of them was of the same kind with that in the first plot. This second plot was so far shaded from the morning sun by a wall, a row of dwarf apple-trees, and the dwelling-house behind all, and it was scarcely touched with frost. The Potatoes of this second plot were dug on the same day with those of the first, and there were a few—a very few—tainted tubers; not, perhaps, one in fifty. We have thus a very distinct example of disease in Potatoes following frost. Was the disease, in this case, the effect of frost? Did frost, I mean, produce the disease? Or what are we to make of this fact?

If we were to come to the conclusion that the disease, in this instance, was an effect of the destruction of the tops by frost (which, however, I by no means assert), we shall have an explanation, so far as regards the mere fact, of one way in which this formidable disease is engendered. I have never seen diseased tubers except where the leaves and haulm had been previously affected, so that we have been accustomed to hold that the disease appears first in the tops, and descends to the tubers; and the people who have cut off the haulm by the ground on the first appearance of

affection in the leaf have afterwards dug the tubers quite round. It has also been observed, that to neglect this notice for two or three days has allowed the disease to develop in the tuber. So far as I have observed, the first appearance of disease in the leaf is remarkably like what we call a touch of frost, if it be not produced by it; the points and edges of the leaf, or the whole leaf, as it may happen, being destroyed just as it would be by frost, less or more.

There is one apparent difficulty in the way of such an explanation, and that is, that the disease is often visible so early in the season that one would say it is absolutely impossible that frost could have occurred. Perhaps this difficulty is more seeming than real. It ought to be considered, that a plant's power of resistance of cold is not a constant and absolute measure; its power of resistance will depend largely upon the manner of its growth and its exposure. Take even a hardy plant, and grow it in a warm house, and turn it out suddenly into the open air, and you may find in a day or two that its leaves have got frost-bitten in summer. It has not required what we call frost to do this: a temperature, which would have been quite congenial to it in other circumstances of growth, has proved too cold for it, and effected what even frosts, had it been otherwise treated, would not have done. The haulm of a Potato, late planted, will develop more rapidly than one earlier planted, and will be softer, and more tender, and more easily damaged. I believe this to be one part of the secret of the advantage of early planting: you have a more healthy top, which will not only perform its functions better, but be capable of offering a greater measure of resistance to cold.

Some two or three years ago, when my Potatoes were well above ground, I discovered two paper-bags with half-a-dozen tubers in each, which I had carefully laid aside for planting, and had forgotten. The tubers had shoots six inches long. I planted them carefully as they were, and in two or three days they were above ground, and in as many weeks had made as much top growth as their more early-planted neighbours. They were, however, first destroyed by the disease, and their tubers in a worse state by far than any other lot in the garden. Now this illustration may be brought to bear upon those cases of disease in July or early part of August. At this season, does it not come after wet and warm weather, and particularly after thunder-storms? Suppose the leaf and haulm then in a growing state, growth will be rapid, and the produce soft: we call this forcing weather, and such is its effect on all vegetable formations. At such times, it is by no means uncommon to have a rapid fall of temperature which, without coming very low, may yet be too low for a growth which has been rapidly developed, and is correspondingly weak, and produce precisely the same effect as frost would be required to do in other conditions. I have further observed, this season, that there has been something uncommonly like a gradation of disease side by side with the visitations of frost to which my Potatoes have been subjected. A lot of Wheeler's *Prince of Wales* (a round, white, early) was left in the ground till the middle of September; they were quite ripe before the frost of the 7th, and the haulm, being dead, could not, of course, be touched by it. The tubers here were all sound, without one instance of a bad one. The *Kidney* slightly touched, but which were not decayed in the haulm, when dug had, say, one in fifty tubers diseased. Potatoes in a field, left later, which got more frost, had about one-tenth diseased. *Flukes* dug last in the same field, and which had got more frost than any others, were still worse. About the *Flukes* I have something more to say, and it bears upon our topic. The *Flukes* made a bad start in the spring; indeed, many sets never sprung at all, and great part of those which came above ground did not appear before July. I rather think that the seed had got slightly frosted, which had weakened its powers in many instances, and destroyed them altogether in others. After getting above ground, the growth of the haulm was very rapid, and it could not be in the same condition for meeting frost as if it had grown from the early part of May. At all events, the *Flukes* were the worst lot in the field. *Dean's Seedling*, planted along side of them, on the same day, came better away, and, when dug at the same time, were in a much better condition. In another field, about half-an-acre were left till the second week in October, by which time there had been frosts in-

creasing in severity and hardening the ground. Most of them were *York Regents*; they were late in planting, and in taking them now from the pit one-half are diseased.

Perhaps some of your readers will be able to account for the facts above stated better than I have done. The subject is one in which we are all largely interested, and we have not yet got much daylight upon it. That the first plot above-mentioned had its leaves destroyed by frost, and that the haulm died in consequence, appears indisputable; and that the tubers were there almost entirely diseased is certain; that the drills protected from frost were unhurt by it, and their tubers entirely sound, is just as certain. Do these facts not point in a certain direction? Do they not appear to indicate a certain conclusion? And can they not be turned to account?—B.

QUERIES AND ANSWERS.

GARDENING.

MANAGEMENT OF SPRING FLOWERS.

"I take great delight in Spring flowers, such as the Polyanthus and double Primrose. For several seasons I have purchased roots just coming into bloom, and planted them in the open flower-borders; but after blooming they gradually disappeared. This has been the case four seasons. My gardener tells me, when I speak of regret at losing them, that they are too near the border, and overhung by the summer flowers. Can this be right? Will you please to tell me how I can treat them to preserve them, and not have, every season, to purchase them?—A SUBSCRIBER FROM THE FIRST."

[There is hardly a lady in the Peerage who could not tell the same tale; but how is the thing to be remedied, seeing that from Her Majesty to Her Majesty's laundrymaid at Richmond, every lady must be her own gardener, and every border must be so full of summer flowers that no room is left for the spring flowers to breathe, and die they must, not by inches, but by the full-measured yard? Your gardener is perfectly right; but he cannot help himself, or your spring flowers either. "Overhung by summer flowers" is too mild a phrase to express the meaning of a downright murdering system; and it is of no use to endeavour to make-believe that the innocents—the flowers of our childhood—are not, in these days, actually murdered, and by none more effectually than by those who regard them with the tenderest affection; but fashion is the executioner.

As spring flowers will not do for "bedding out," bedding plants are made to "do" for spring flowers. Where could you find a border of spring flowers, now-a-days, when judgment is gone to the war? Nowhere. But there is some appearance of a better state of things. Sensible people begin to see the error of turning over all the beds and borders in a flower-garden to the fashionable system of "bedding out;" also the folly of all the endeavours to graft the "bedding" on the "mixed" system, which have brought ruin and destruction to all but the coarsest-growing herbaceous plants. Hence the rise to a better system of *mixing* plants than formerly, as exemplified in such planting as is mentioned by Mr. Beaton, at page 214, and referred to again in our pages last week. You were anticipated by the planter of that model border in the provision made for "our" favourite spring flowers; for we claim the good taste of being as fond of them as you are. A row is devoted entirely to the *Primrose* tribe, and is so placed that no other flower can "overhang" them during the summer; they are even protected from the fierce east winds and May sun, as they are going out of bloom, by *Nemophila*, the prettiest and again harmless, to other plants, of all the spring annuals. Meantime, however, proceed thus, and, for the rest, watch what is coming on the mixed system in our pages. Buy the double white, the very dark, and the dark purple double *Primrose*, in pots, next spring, when the plants are in bloom; keep them in pots all next summer, and plant them out on a sheltered border towards the end of September. As soon as they have done flowering, turn them out of the pots, and if the roots are at all matted, shake the whole of the old ball from the roots; the compost of the florist is far too rich for

them, and oftener kills them than anything else. Pot them in larger pots, and in sandy loam, but no rotten dung of any sort, unless it be a very little half-rotten leaves. Old turf, from over a yellow, stony loam on a common, reduced down to a crumbly loam, and then mixed with as much pure white sand as would make it a "light compost," would grow and keep in health any of those double *Primroses* for many years; while the more rich composts would kill them by the dozen after the second or third flowering. The border to plant them in for flowering should have a south-east or south-west aspect. They go to rest every year for six weeks, a little after they have flowered, and at that time they ought to be taken up with balls, every year, and to be removed to a north aspect, and have the very selfsame treatment as *Cinerarias* and *Chinese Primroses*, from the middle or end of May to the end of September, or any time in October; that is, never to see the sun all that time after eight o'clock in the morning till five or six o'clock in the afternoon, and the air kept cool and moist about them by morning and evening syringing, by pouring water on the paths near them, or dashing it against the wall behind them. Tell the gardener about the compost and the summer treatment of *Cinerarias*, and see to the movings yourself.]

ROSE, MRS. BOSANQUET, NOT FLOWERING.

"Please to tell me why a Tea-scented Rose, *Mrs. Bosanquet*, which, when planted four years ago, flowered abundantly, but has never flowered since, though apparently in vigorous health, making long shoots, having been pruned each year with other Tea-scented Roses in November, and well manured. The soil is strong loam, and has been mixed with leaf-mould and manure. The Rose is a dwarf standard budded on a Brier.—ALICE."

[It is "over-done;" it is too strong by one-half. Take it up carefully next February, shorten all the strongest of the roots to about half their length, and leave the small roots just as they are; plant it, without manure, in the same place, or anywhere, and after that it will bloom most profusely. We have seen it, and two or three more of that class, over-done before now.]

TREATMENT OF DISEASED FRUIT-TREES.

"On taking possession of a new abode, I find an orchard, chiefly of Pears and Apple trees, apparently planted some seven or eight years, the stems of which are in a very unhealthy-looking state, the bark all cracked, and, what I suppose is called, cankered, and in many places they, as well as the branches, are covered with moss or lichen. I suspect the stems have at one time been coated over with paint or composition. The trees are growing in a grass meadow, the soil being a rich, light loam. I am having all the turf taken off, and the ground double trenched, except in a circle of about five feet from each tree, which is only lightly forked over. What further treatment should I follow to restore the trees to a healthy state? Should I prune freely, or add manure? And how am I to remove the moss?—H. S. H."

[Thin out moderately the branches where crowded. Scrape off the old dead bark and moss. Paint over the stems and main branches with a thick cream of quick lime and water. Point in a little rotten manure in a circuit of four feet round each tree, and keep the same space mulched and free from grass.]

HOT-WATER NOT CIRCULATING.

"Your correspondent 'R. R.' asks a very easily-answered question, as to 'Whether there is not some place in London where he could obtain a boiler and furnace altogether in one, and so portable as to set it in his greenhouse.' I reply to him—No, not at present. But in the course of three weeks or a month I shall be happy to supply him with an engraving of the very thing he needs, and for which a patent is about being taken out, and which burns $\frac{1}{4}$ d. per hour for twenty gallons of water. If he will

send me his name and address, I might give him a hint in the correspondence.—W. H. WARNER, *Melrose*."

KILLING TREES.

"In America, I destroyed several large trees in the following manner:—I bored a hole with a centrebit to the inside of the trunk, low down. I then introduced a good quantity of common salt, and plugged up the hole. In the course of a short time (three months) the tree died. Another way: I bored the hole as before, and poured in boiling water; this I did several times. It had the desired effect.—W. H. WARNER, *Melrose*."

THE POULTRY CHRONICLE.

POULTRY SHOWS.

GREAT NORTHERN. Jan. 23rd and 24th, at Doncaster. Sec. H. Moore, Esq., Doncaster.

KENDAL. At Kendal, February 1st and 2nd. Sec. James Geldard.

LIVERPOOL. 16th, 17th, and 18th of January. Sec. W. C. Worrall, Esq., 6, Lower Castle Street. Entries closed December 24th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

THERE are in villainy as in all other bad acts of man, three degrees, and the superlative of this—the greatest villainy—is that which designedly injures the poor. An instance of such villainy is now before us, and if we knew the name of the perpetrator, be he who he may, we would publish it, and ask of every Poultry Show Committee to publish at the head of their Prize List the name of this offender as one who would not be allowed to exhibit.

The case to which we allude occurred at the late Birmingham Show, and has been communicated to us by an unimpeachable witness, as follows:—

"We are aware of a pen of poultry being lent for exhibition at the late Birmingham meeting, to compete against the cottagers, on the pre-agreed understanding, that the *professed* exhibitor should claim the pen the instant the sale office opened. This drew upon its *real* owner the undoubtedly well-merited punishment which followed.

"The prize-taker and his friends, exultant with success, adjourned to the 'second class refreshment-room,' and there, whilst enjoying creature comforts, were forgetful altogether of rules enjoined, or 'the moments as they flew,' and never, till the subject was mooted by a bystander (which was some considerable time after the sale had commenced), was the attempt even thought of, to secure the safe return of this pen of poultry to the *real* owner. But the sequel is soon told. A claimant had already appropriated the treasure, and our cottager (?), who a moment before was exuberant in joy and exultation, breathing defiance to all and every pen in the same variety, either at Birmingham or elsewhere, became, with pantomimic rapidity, as suddenly chop-fallen and demure. What may be the eventual arrangement between the parties thus engaged in plans of complicity, we do not, of course, attempt to determine, but trust the exposure may possibly prevent its so frequent practice elsewhere. We must, also, add, this is not by any means an isolated instance, but simply an 'illustration' of the fraudulent means so commonly adopted to frustrate the good intentions of those, whose *only* object was to really offer premiums worthy of competition among the deserving poor; fraudulent means, be it remembered, adopted to defeat and to rob of the prize the honestly-exhibiting cottager."

EARLY PRIZE CHICKENS.

It is an unquestionable fact that we begin the new year badly unless we have gained wisdom from that which has just finished its career. The time of rest from Poultry Shows will soon be here. In a few weeks all that will be heard of them will either be a recapitulation of past triumphs and disappointments, or the note of preparation for those that are coming.

Among these the earliest will, no doubt, be the Royal Agricultural Society and the West of England. These are in July. It is certain, that for winter exhibition, May chickens are better than January or February; but they are too young for summer shows. Chicken classes, for this season of the year, are principally confined to Dorkings, Cochins, and Spanish. While the difficulty of rearing them in the winter is admitted, still, as it is accomplished by some, it may be by others, and the season tempts us to enter a little into detail on the subject; following "Tristram's" capital notion of plain and common sense views.

Select a young, healthy hen to sit on five, or, at most, seven eggs, and let her have a quiet, warm, and sheltered place. If it will allow of her being shut in, so much the better. As the nest *must* be on the ground, the locality must be chosen perfectly secure from rain, or from the searching irruption of melted snow.

Feed the hen generously, and, as the eggs soon chill in the winter, let her always have food and water within reach, in small portions. If a quantity of meal is thrown down, and she is considered provided for till it is all consumed, it is a fatal error. It lies about till it is sour, and nothing but sheer hunger, approaching to starvation, will make her eat it. This is too often the case when hens are declared to be off their feed. Twice every day she should have good oatmeal mixed with hot water, and given warm. A few grains of hempseed in the middle of the day are good food. As the number of eggs will appear small, we will try to justify it. No bird hatches her young under more favourable circumstances than a hen pheasant. Warm weather, short nights, the earth teeming with food, yet she never rears more than seven. What prospect can there be, then, of a hen rearing eleven, or even nine, under every natural disadvantage. Of course, some will dissent from us, and trying a larger number, and hatching them, will, when they are ten days old, smile at THE COTTAGE GARDENER; but we shall be content to bide our time. Although not strong, they may be alive. Wait till they are three weeks old.

The difficulty that interferes most with rearing early chickens is to overcome the long night of from fifteen to sixteen hours when they are without food. There is only one substitute, and that is warmth. This must be derived from the hen. It will now be seen why she should not have more than five chickens. If she had nine, they would, while small, be well covered; but they grow while the hen does not. Her capabilities are not increased by the requirements of her progeny. The consequence is, she cannot cover them during the night. The outer chicken feeling the chill, fidgets, or, as we used to say at school, "squeeges," till it has displaced one of the more fortunate among its brethren. But it was chilled before it got in, and the shifted one is so as soon as it gets out. They may not die directly, but they do not thrive afterwards, and they will never win a silver cup. This is, generally, the foundation for the lament over the decline and fall of a promising brood. How familiar the words are, "They did well till they were about five weeks old, and then, one by one, they died. Every morning there was a poor little thing, with its little wings drooping, making a mournful noise, and shivering even in the sunshine. After a time it died. It is so disheartening." The cure is to allow a hen but five chickens, and she will rear four. She can cover them after they have started to grow, and till the nights get shorter and warmer. The hen should be under the coop, or rip, till the chickens are at least ten weeks old, and at night it should always be covered with matting or sacking, or a piece of carpet.

Let them have, when young, plenty of curd, of egg chopped fine, and of oatmeal mixed with new milk; if you can add thereto some onion-tops so much the better. During the

short day of eight hours they cannot be fed too often, and let them have some milk to drink.

Feed your hen as you do the chickens; give them the scraps and crumbs of the bread from your table, and in cold and wet weather soak them in ale or wine. Recollect, as a golden rule, no warmth is so beneficial as that engendered by generous, but proper, feeding.

These things are more tedious to read than to carry out, and it is by following these rules you may hope to begin your season as a prize-taker in early Dorking chickens.—SUSSEX.

THE LAST CHIRP.

THOUGH I know that readers always get tired of any prolonged discussion, I must, for the sake of truth, and for the honour of the Anglo-Saxon, expose the drift by which my acute opponent, Mr. Tegetmeier, tries to make me accompany him when he says, "Both are in error." It is this—I affirmed, and do affirm, on the authority of every Anglo-Saxon Grammar, that in the *Anglo-Saxon* tongue, no plurals are formed by *en*. He then quotes some "Early English" words (*uncle* and *bishop*) to show how "utterly incorrect" I am! Surely, he knows that *Anglo-Saxon* is not *Early English*!

As Mr. Tegetmeier forsakes his colours (and the *true* colours, by-the-by, that is, the Anglo-Saxon), and takes refuge in the Early English, I have no objection; although I much question the good taste of any man retrograding a few centuries in his speech. Besides, it would puzzle one to read of *chickhousen*, of Right Reverend *Bishopen*; nay, one should not recognize one's own *uncle*.

"What a clever woman Mrs. A— must be," writes the Rev. Sydney Smith; "she says, *thereto*; but, I suppose, she wears high-heeled shoes, and patches." But I entreat that this hint of "dressing to character" may not befall you, dear Mr. Editor, or you will behold some of your writing staff—"Fine old English gentlemen, of the olden time"—enter your office in top-boots and leathers, bag-wigs and hairpowder! Nay, worse, some fair ones in hooped petticoats and farthingales! Save you from your *ancient* friends, truly!—F. R. HORNER.

WHAT ARE HAMBURGH POLANDS?

IN your Number for December 4th your correspondent "B.," in defending my description of the Spangled Hamburgs, says as follows, in reply to "D.:" "The mischief comes from those who have formed their opinion from the HAMBURGH POLANDS," &c. "Lacing with them, is the exception, either in the body or the crest: the latter is mostly white, or having entire dark feathers intermixed, not laced ones, hanging down on one side of the head, and obstructing the sight; in fact, exactly like the engraving in Richardson's "Poultry Book," which he calls the *Hamburg Fowl*;" and which I call so still, believing it the correct name, and known as such for a century in these countries prior to 1848. The birds which Mr. Richardson described, I believe were mine, as he lived in my neighbourhood, and had daily opportunity of examining them, although, for reasons best known to himself, another's name was preferred as the owner.

I have given a long attention to this breed, and as "B." is evidently an amateur of experience and long standing, he will confer a favour by stating more explicitly what he means by *Hamburg Poland*s. Is he aware of any breed having been at any time brought from Poland?—R. P. WILLIAMS.

DUBLIN SOCIETY'S PROPOSED BASIS FOR POULTRY JUDGING.

I was, perhaps, premature in sending a letter of complaint against the spirit in which your correspondent, "D.," criticized the "Proposed Basis" put forward by me, especially as that gentleman compliments me "on the research and talent of the paper, although he cannot agree to the rules;" but I have one thing to feel pleased at, viz., that it has induced discussion; as I find, in your Number for December 4th,

another of your correspondents, "B.," who shows himself an amateur of standing, does not agree with "D.," thus clearly showing, that a general basis of judgment (such as has long obtained in florists' flowers) is a desideratum. I have, however, a still greater source of satisfaction, namely, that in the Report of the Birmingham Show, by the *Midland Counties Herald*, the distinctive markings insisted on in my basis are dwelt on as being defective, viz., in speaking of the *Golden-crested Fowl*.—"Nor could any inattentive observer fail to perceive that the size and form of the spangles, in both the Gold and Silver sorts, have become sadly deteriorated, the feathers, in the great majority of instances, being only laced at the end, instead of having the broad, boldly-defined, crescent-shaped mark which should be met with," &c. Again, on the *Silver Pheasant Lancashire Moonies*, or, by the nomenclature of 1848, *Silver Spangled Hamburg*, the Editor remarks, "We hold to the belief that a want of taste obtains as to what are "the properties" of these very beautiful and useful occupants of our poultry-yards, breeders not being content, in their efforts to obtain them of a very light colour, to dispense with those *lacings on the wings* and other ornamental distinctions, which, in our estimation, greatly enhance the appearance of both cocks and hens."

In the *Dorking* Class, he says, "Every variety of colour, with both double and single combs, was very efficiently represented in quality, as well as numerically, the bulk of them comprising closeness of feather and UNIFORMITY OF PLUMAGE, with *large size*;" from which it would appear the English public are opening their eyes, and find that Dorkings (true Dorkings) have a colour, and can be bred *true to feather, with size*, the majority agreeing with the description in my basis, although "D." found fault with it; but a reference to "The Poultry Book" would have shown him the hen with a falling comb, (not such as the Spanish) and the cock a black-breasted grey, and described as of no mean weight.

In concluding this letter, I would only say to your correspondent "D.," who recommends me to visit Birmingham, that I have been to four of the Shows, and was a competitor last year (1854); but the December sea-voyage and distance, I fear, prevent a second attempt, though allured by the tempting prizes and the spirit of rivalry. I can only assure him, that how greatly soever I admired and wondered at the number brought together, I saw much to regret in the want of perfection in marking of several of the breeds, as alluded to by the *Midland Counties Herald*, as well as want of purity in the feather of the Dorkings. In the *Dutch Pencilled Fowl*, the two black bars that ought to cross the wings were, in few instances, but barely traceable.—R. P. WILLIAMS.

PRICE OF DORKINGS.

IN your report, headed, "Poultry progress of the past year," you state a cock was recently sold for £15. It will be only fair to say, that at the late Birmingham Show, the first prize cock, in pen No. 824, belonging to Lady Chesterfield, was claimed at £15; Mr. Robert Lodgers, The Beeches, third prize cockerel, in pen 561, for the same price; and the highly commended cock, the property of Mr. Henry Smith, The Grove, Cropwell Butler, in pen 886, for 15 guineas. By inserting the above you will oblige.—A LOOKER-ON.

THE MERITS OF GAME FOWLS.

I WAS at the Colchester Show last Saturday, and could not help observing the Spanish fowls. There certainly was plenty of white in the face of almost every specimen, but it appeared to me to be so very *coarse*, and, in some cases, the eye of the bird was nearly closed by it. Is this essential in a Spanish fowl?

The Game classes were very numerous and beautiful. I think the most indifferent could but admire the beautiful cocks in this class. Game fowls are now more numerous than any other fowl at our exhibitions, and I think Committees of Shows ought, in fairness to exhibitors, to offer additional prizes for these beautiful birds; for, in addition to their great beauty, they are excellent layers and table

fowls. Many persons complain that they cannot keep Game fowls because of their pugnacious qualities. Have their little battles they will. I have, however, kept these fowls some time, and have been constantly in attendance on between fifty and sixty chickens this year, and have not observed a single death from fighting.—ONE OF YOUR READERS.

PRODUCTIVENESS OF A COCHIN-CHINA HEN.

I HAVE a Patridge-coloured Cochin China hen that has reared four broods this season, amounting to forty chickens. She commenced sitting on the 19th of January; on the 9th of February she brought out eleven chickens. The weather at that time being very cold she only reared seven. On the 10th of March she commenced laying the second time; after laying thirty eggs in thirty-three days, on the 12th day of April I again sat her on seventeen eggs. Up to this time she continued to run about with her chickens, and roost with them by night, just as she did when they were only a week old. After sitting the usual time, she brought forth fifteen chickens, and reared fourteen of them. On the 26th day after she again began to lay; after laying twenty days successively, three days after I sat her the third time on fifteen eggs. At the end of three weeks she hatched out twelve chickens. This brood having the gapes, she only reared nine. On the 16th of August she began to lay again—laying twenty-seven eggs in thirty-one days. Four days after she had done laying, I again sat her on fifteen eggs; twenty-two days after sitting she brought out twelve chickens, and reared ten. On the 18th of November she again began to lay for the fifth time. After laying twenty-five eggs in twenty-eight days, I again sat her on the 17th of December. On the 7th of January I expect another brood.

I suppose some will say this is too much for one season. All I can say is, she is looking as well as any other hen I have, in upwards of fourscore. I have kept her in a shed at the back of a greenhouse, where she has access to a north border when the weather is fine. She is thoroughly domesticated; I can take her up at any time without fluttering her. She has been kept alone all the season (except her chickens), so I have not sat her on any of her own eggs.

I have been often asked why I kept Cochins, having so many other good sorts. The above account, I think, will suffice for an answer. I have tried many other sorts separately, but the Cochin has beat them all, having, in less than twelvemonths, laid 128 eggs, and reared forty chickens.

I have reared upwards of 200 chickens this season; not for my own profit, but for my employer's consumption. Some of my neighbours often say they wonder I take so much trouble about the poultry. My answer to such remarks is, I do not not take it as trouble; it is trouble only to those who take no delight in poultry, or in the feathered tribe. I think those are to be pitied who cannot spend a half-hour with profit amongst poultry. If we look at the diversity of colour, such as painters can but partially imitate, symmetry of form, such as Nature can only produce, and study their characters, we have a pleasure and good work of time only to be accomplished by a contemplative mind. I do not know of anything that can give us more pleasure. If we look on poultry as ornamental, or as adding to our comforts, we have it in abundance of eggs, in multitudes of feathers, and in the flesh of the fowl itself. I think, for cottagers, Cochin-Chinas would be found most profitable, as they are good layers, good sitters, the best of mothers, and can be kept in a less run than any other sort, and are not to be despised at the table.—E. C.

THE PIGEON PRIZES AT THE BIRMINGHAM SHOW.

AFTER reading the remarks of "TRISTRAM SHANDY" in your Journal of the 1st instant, I should be wanting in courtesy did I remain silent. I, for one, thank him for his remarks, as it may, perhaps, teach Pigeon Judges their duty when they do not know it. I cannot say anything as regards the prizes taken by G. Adkins, Esq.'s, birds, but can speak for my own.

My *Almonds* and *Mottles* were two pairs of the birds to whom the cup was awarded at the Anerley Show last year. My *Pouters* took the second prize at our Columbarian Show, held here in October last. My *Carriers* were from the same breeders who took both first and second prize here at our last show, and they considered my pair equal to any they had themselves, and they have also taken prizes.

So far am I from being satisfied with the award, that I will show my same four pairs of birds against Mr. H. Weir's, which he exhibited here, for the amount of the cup, or double or treble the amount, to be decided by three or five judges of the fancy, separately. Their awards to be made in writing, and sealed, until the birds have been forwarded to all for their examination.—EDW. H. LINGARD.

JUDGING OF PIGEONS.

THIS subject appears to be producing some excitement among the Pigeon fancy. Mr. Jones Percivall, some time back, complained of the judgment at Anerley; now Dr. Horner complains of that at Birmingham. It is my opinion that, to a certain extent, both gentlemen have some reasoning on their sides; but each, I think, errs by running into violent extremes. Mr. Percivall is a red republican in the Pigeon fancy,—a complete leveller; while Dr. Horner shows himself as a rank Tory aristocrat, so tightly bound to antiquated routine by fancy red tape, that he will not admit of any worth in anything but an aristocrat.

I am well aware of the tenacity with which true fanciers adhere to those varieties of Pigeons which they particularly cultivate, and no others are valuable in their estimation. So bigotted are they (for I cannot find a milder term) to the varieties they prize, that they denominate all others as *Toys*,—mere rubbish,—and will not allow them any properties, or even admit that they are capable of any improvement. It was to this prejudice I alluded, in my answer to Mr. Percivall's letter, when I mentioned that the less highly-bred varieties could not be expected to compete with the high fancy breeds; and although I acknowledge the superiority of these varieties, I am fully convinced that there are many other varieties capable of competing with them if properly bred. Still, we must not be too lavish of our favours, nor too bigotted in our awards.

In reply to Dr. Horner, I beg to say, the fourth crack sort he cannot find are the *Runts*, which have never been classed as *Toys*, not even by Mr. John Moore (1735), and his copyists; for of the three authorities named by the Doctor, two are copies of the first.

But why, may I ask, are we to be bound in one unprogressive lump by the red tape of the old fanciers? All honour and respect is due to them for their indefatigable endeavours to improve the sorts they liked; but are no others, also, capable of improvement? Have none of the other sorts of Pigeons properties that can be worked upon to bring them up to a high standard and proportionate value?

I admit, that in some localities certain varieties are plentiful; but Dr. Horner sadly commits himself when he runs into extremes. First-class birds are not as plentiful as blackberries, nor are they easily obtained; nor is there less trouble or care required to breed a *Jack*, a *Turbit*, or a *Barb*, to perfection. Take a standard of merit for any one of these varieties, and compare the number of birds that would approach it, and the number of short-faced *Tumblers* that would answer to their own standard, and I have no hesitation in saying, that good *Tumblers* will be found much more plentiful than really good birds of any other variety.

I do not believe there is now a really good short-faced *Jacobin* in England; but are we not to encourage the breed of *Jacobins* by acknowledging the best that can be shown, in hopes of improving them? And is not the endeavour of that fancier as worthy of a cup, who improves a *Jacobin*, or a *Fantail*, as he who dwarfs a *Tumbler*, coaxes the beak of a *Carrier*, or the toe-nail of a *Pouter* into an unnatural prolongation of horn? Must we all control our fancies to the ideas of a few crochety fanciers, and believe that nothing is beautiful but a short beak, a narrow head, or a large crop,

or what they please to tell us? Are we to see no elegance in the well-bred *Fantail*? are no points of excellence here to be obtained in the slender neck and tremulous motion, the protuberant chest, the well-spread tail and spotless plumage?

Has the *Turbit* no points—short, plump, compact, neat, with his short, thick beak, angular head; his gullet, like a bull's dewlap, confining his beak to his breast; the arrangement of his shirt-frill, and the accurate marking? Are these not points difficult to be had? The *Barb's* thick head, short beak; his scarlet-rose eye, and elongated body—the hooked beak of the *Owl*, how rare a property now—the turn over the beak, the feathered feet, and the peculiar voice of the *Trumpeter*—are these without merit?

It is generally thought that all the tame Pigeons are descended from the Blue Rock Pigeon. Will any one of the gentlemen of the high fancy explain how he can produce a *Jacobin*, *Fantail*, *Turbit*, or *Barb*, from that source, easier than he can a *Carrier*, a *Tumbler*, a *Pouter*, or a *Runt*?

I would advise fanciers to shake hands over their disputes, and agree to differ. It is impossible we should all most admire the same variety. We each see with a different pair of eyes, and each has peculiar fancies to beguile.

There is, however, one remark I would wish to make before I close this paper, namely, there is a class of Pigeons that may truly be called Toys; these are simply Dovehouse Pigeons, altered in colour, or occasionally a turned crown, or feathers on their feet, derived from a cross. They are as follows:—*Swabians*, and other spangles, *Nuns*, *Priests*, *Monks*, *Archangels*, *Breasts*, *Stomachers*, *Storeks*, *Spots*, *White Spots*, *Helmets*, *Shields*, *Magpies*, *Swallows*, *Gulls*, *Lahores*, *Starling Breasts*, *Swiss*, &c., none of which have any property they can boast of which cannot be obtained from the other varieties, except feather; and, consequently, must not be allowed to compete on equal terms with the others. Dr. Horner's remarks would be much more applicable to this division; but even here, he would find some difficulty to breed them true to colour, and exact to marking. I am, certainly, not republican enough to allow them to rank as first-class.

But as regards the *Jacobin*, *Fantail*, *Trumpeter*, *Turbit*, and *Barb*, they have many properties, and the *Owl*, *Laugher*, *Finikin*, *Frillback*, *Frizzled*, and *Lace* Pigeons have, also, properties not found in any other varieties; properties by which they are at once distinguishable from all others, and which are capable of being brought out, even to as great perfection as those of the *Tumbler's*, the *Pouter's*, *Carrier's*, or *Runt's*; and what man shall presume to ridicule his brother, because he does not see through the same darkened piece of glass?—B. P. BRENT, *Bessel's Green, near Sevenoaks*.

PRESTON AND NORTH LANCASHIRE EXHIBITION OF POULTRY.

THIS took place on the 9th and 10th instant. We must reserve our comments until next week, contenting ourselves with giving to-day the awards of the Judges.

JUDGES.—John Bailey, Esq., London, and Edward Hewitt, Esq., Birmingham.

DORKINGS (Coloured).—3. SILVER CUP, William Wright, West Bank, Widnes, near Warrington. 33. Second, G. A. Geldard, Aikrigg End, Kendal. Highly Commended.—2. William Wright, West Bank, Widnes, near Warrington. 7. Mrs Thomas Townley Parker, Astley Hall, Chorley. 10. William W. Rutledge, South End, near Kendal. 25. John Copple, Eccleston, Prescot, Lancashire. 34. John Charles Forrest, New Field House, Lower Darwen. 35. Joseph Hindson, Boston House, Everton, Liverpool. 41. Daniel Parsons, Cuerden, near Preston. Commended.—80. Mr Cobourne, New Brighton, Cheshire. *Chickens of 1855.*—732. **SILVER CUP**, William Wright, West Bank, Widnes, Warrington. 733. Second, William Wright, West Bank, Widnes, Warrington. Highly Commended.—740. John Robinson, Vale House, Garstang. 746. Sir Thomas Hesketh, Rufford Hall. 750. William Hornby, Clerk, St. Michaels-on-Wyre. 758. G. A. Geldard, Aikrigg End, Kendal. 760. Cabourn Poeklington, Boston, Lincoln. 764. Daniel Harrison, Singleton Park, Kendal. 767. Major Thornley, Ormrod House, Burnley. 769. Daniel Parsons, Cuerden, near Preston. 773. William Bowness, Royal Hotel, Bowness, Windermere. Commended.—744. Mrs Henbury, Thornbank, Levington, Warwickshire. 754. Captain W. Hornby, Knowsley Cottage, Prescot. 759. James Dixon, Bradford. 770. Daniel Parsons, Cuerden, near Preston. (A capital class.)

DORKINGS (White).—48. SILVER CUP, Joseph Cliff, Dorking, Surrey.

SPANISH.—60. **SILVER CUP**, James Howard, Tarleton. 66. Second, G. A. Geldard, Aikrigg End, Kendal. Highly Commended.—53. Edward Simons, Birmingham. 58. William Newsome, Heckmond-wike, Yorkshire. 69. Joseph Tate, Preston. Commended.—54. Thomas Walters Hill, Holly Bank, Hopwood, Heywood, near Manchester. 72. Joseph Tate, Preston. *Chickens of 1855.*—111. **SILVER CUP**, and the extra **SILVER CUP**, presented by Mr Tate, Captain W. W. Hornby, Knowsley Cottage, Prescot. 94. Second, William Wright, Brundrit, Runcorn, Cheshire. Highly Commended.—93. John Roberts, Golden Lion Inn, Oldham Road, Manchester. 103. James Howard, Tarleton, Chorley. 110. Captain W. W. Hornby, Knowsley Cottage, Prescot. 128. Edward Harris Strange, Amptill, Bedfordshire. 135. James Dixon, Bradford. Commended.—100. William Newsome, Heckmond-wike, Yorkshire. 119. Joseph Tate, Preston. 125. George Stowe, Colne. (Class deserving general commendation.)

COCHIN-CHINA (Cinnamon and Buff).—151. **SILVER CUP**, William Dawson, Hopton, Mirfield, Yorkshire. 147. Second, Stephen Donue, Clerk, Oswestry. Highly Commended.—173. G. A. Geldard, Aikrigg End, Kendal. 183. Thomas Stretch, Marsh Lane, Bootle, Liverpool. 194. Robert Worthington, Crumpsall Hall, Manchester. Commended.—145. Sarah Rebecca Herbert, Powick, near Worcester. 153. William Copple, Eccleston, Prescot, Lancashire. 181. Henry Tomlinson, Balsall Heath Road, Birmingham. 193. Robert Worthington, Crumpsall Hall, Manchester. (A class worthy of the old days of Cochins.)

COCHIN-CHINA (Brown and Partridge - feathered).—213. **SILVER CUP**, and the extra **SILVER CUP**, presented by Mr Burnett, George C. Adkins, West House, Edgbaston, Birmingham. 209. Second, Thomas Bridges, Croydon, Surrey. Highly Commended.—197. Alfred Fryer, Chatteris, Cambridgeshire. 206. Grenville F. Hodson, Clerk, North Petherilton, Bridgewater, Somerset. Commended.—203. Viola Woodman Musgrove, Seaforth, near Liverpool.

COCHIN-CHINA (White or Black).—232. **SILVER CUP**, Robert Chase, Moseley Road, Birmingham. 217. Second, George Charlton Peters, Moseley, Birmingham. Highly Commended.—225. William Copple, Eccleston, Prescot, Lancashire. Commended.—220. Francis Edwards, Bulstrode Park, Bucks. 229. Henry Beldon, Prospect Place, Eccles Hill Moor, Bradford.

BRAHMA POOTRA FOWLS (Light).—246. **SILVER CUP**, Robert H. Bush, Littlefield House, Clifton, near Bristol. Highly Commended.—245. Thomas Fisher, The Acres, Lower Bellington, Cheshire. Commended.—248. William Cust Gwynne, M.D., Sandbach, Cheshire.

BRAHMA POOTRA FOWLS (Dark).—258. **SILVER CUP**, Paul Catterall, junior, Whittingham House, near Preston.

GOLDEN-SPANGLED PHEASANT OR HAMBURGH.—265. **SILVER CUP**, David Henderson, Top o' th' Lee Farm, Shuttleworth, near Bury, Lancashire. 283. Second, James Dixon, Bradford. Highly Commended.—282. James Dixon, Bradford. 285. Joseph Conyers, junior, 42, Bow Lane, Leeds. *Chickens of 1855.*—318. **SILVER CUP**, Edmund Torner, Kearsley. 319. Second, William C. Worrall, Rice House, Knotty Ash, Liverpool. Highly Commended.—302. William Kerhaw, Heywood. 310. James Dixon, Bradford.

GOLDEN-FENCILED PHEASANTS OR HAMBURGH.—322. **SILVER CUP**, Josiah B. Chune, Green Bank, Colebrookdale, Shropshire. 323. Second, Charles Edwards, Brockley Court, near Bristol. Highly Commended.—328. Mr E. Featherstonhaugh, The Hermitage, Chester-le-Street. 332. James Dixon, Bradford. 344. William C. Worrall, Rice House, Knotty Ash, Liverpool. Commended.—325. Thomas and Edward Booth, Marsden, near Burnley. *Chickens of 1855.*—357. **SILVER CUP**, Thomas McCann, Graham House, Malvern. 363. Second, Robert Thompson, Hyning, Levens. Highly Commended.—365. Robert Cheshyre Whiteway, Irwell House, Runcorn. 371. Daniel Harrison, Singleton Park, near Kendal. Commended.—358. Mr E. Featherstonhaugh, the Hermitage, Chester-le-Street. 359. James Fletcher, Stone Clough, near Manchester. 373. William C. Worrall, Rice House, Knotty Ash, Liverpool. (All the Golden Hamburgh classes very good.)

SILVER-SPANGLED PHEASANT OR HAMBURGH.—381. **SILVER CUP**, Josiah B. Chune, Green Bank, Coalbrookdale, Shropshire. 375. Second, William Wright, West Bank, Widnes, near Warrington. Commended.—398. J. Pearson Postlethwaite, Beck Side, Kirby, near Ulverston. *Chickens of 1855.*—428. **SILVER CUP**, Mrs H. Sharp, 47, Mill Lane, Bradford, Yorkshire. 410. Second, James Greenall, Grappenhall Hall, Warrington. Commended.—423. Francis Worrall, Knotty Ash House, near Liverpool. 424. George C. Adkins, West House, Edgbaston, Birmingham. (Not good classes.)

SILVER-FENCILED PHEASANT OR HAMBURGH.—443. **SILVER CUP**, James Dixon, Bradford. 434. Second, Francis Leedham, Burton-upon-Trent, Stafford. Commended.—433. Joseph Hodgson, Hebden Bridge. *Chickens of 1855.*—458. **SILVER CUP**, James F. Greenall, Grappenhall Hall, Warrington. 468. Second, The Rev. Thomas Fellowes, Brighton Rectory, Acle, Norfolk.

POLISH FOWLS (Of any variety).—505. **SILVER CUP**, Joseph Conyers, junior, Boar Lane, Leeds. 506. Second, Joseph Conyers, junior, 42, Boar Lane, Leeds. Highly Commended.—480. Edward William Haslewood, Bridgenorth. 486. James F. Greenall, Grappenhall Hall, Warrington. 491. James Beesley, Yew Tree Cottage, Prescot. 499. George Fell, Warrington. 508. George C. Adkins, West House, Edgbaston, Birmingham. Commended.—504. James Dixon, Bradford. (Very good class.)

GAME FOWL (Black-breasted and other Reds).—530. **SILVER CUP**, William Dawson, Selly Oak, near Birmingham. 556. Second, Charles Richard Titterton, Snow Hill, Birmingham. Highly Commended.—512. James Monsey, Norwich. 523. William Buncombe, Taunton, Somerset. 529. Thomas and Edward Booth, Marsden, near Burnley. 534. Francis Atkinson, Lord's Plane, Leven, Milnthorpe, Westmoreland. 537. Theed William Pearse, Bromham Road, Bedford. Commended.—520. Henry Simpson, Hyning. (A very good class.)

ANY OTHER DISTINCT VARIETY OF GAME.—581. SILVER CUP, Frances Atkinson, Lord's Place, Leven, near Milnthorpe. 570. Second, George C. Peters, Moseley, Birmingham. Highly Commended.—566. Thomas Walters Hill, Holly Bank, Hopwood, Heywood. 572. William W. Brundrit, Runcorn, Cheshire. 580. William Vickerman Drake, Lockwood, near Huddersfield, Yorkshire. 594. Edward H. Strange, Ampthill, Bedfordshire. Commended.—565. James Monsey, Norwich. 588. Joseph Hartley, Spring Lane Mill, Holmfirth, near Huddersfield.

ANY OTHER DISTINCT BREED.—603. SILVER CUP, John Town, Colne Lane, Colne. 606. Second, Miss C. D. Bush, Litfield House, Clifton, near Bristol. Highly Commended.—608. William Dawson, Hopton, Mirfield, Yorkshire.

BANTAMS (Golden-laced and Golden-spangled).—630. Prize, Thomas Hincks, Pennfields, Wolverhampton, Staffordshire. Highly Commended.—628. Harry Wildman, 101, High-street, Birmingham.

BANTAMS (Silver-laced and Silver-spangled).—646. Prize, James Dixon, Bradford.

BANTAMS (Black).—650. Prize, Matthew Ridgway, Dewsbury. Highly Commended.—649. William Dawson, Selly Oak, near Birmingham.

BANTAMS (White).—658. Prize, Mrs Thomas Townley Parker, Astley Hall, Chorley, Lancashire.

TURKEYS.—666. Prize, William Kershaw, Heywood.

GEESE.—672. Prize, William Kershaw, Heywood. Highly Commended.—671. John Farmer Newton, Clerk, Kirby, Cleveland, Yorkshire. 675. William Kershaw, Heywood.

DUCKS (White Aylesbury).—678. First, Thomas Walters Hill, Holly Bank, Heywood, near Manchester. 691. Second, Joseph Conyers, junr., Bow Lane, Leeds.

DUCKS (Rouen).—701. First, Mrs David Henderson, Top o'th' Lee Farm, Shuttleworth, Bury. 711. Second, Henry Worrall, Knotty Ash House, Liverpool. Highly Commended.—707. Joseph Conyers, junior, 42, Boar Lane, Leeds. 715. William Wanklyn, junior, Green Bank, Bury. Commended.—709. John Williamson, Whitefield House, Walton, Liverpool. (A good class.)

DUCKS (Of any variety).—728. First, Joseph Conyers, junior, 42, Boar Lane, Leeds. 720. Second, Joseph Hodgson, Hebden Bridge. Highly Commended.—719. Thomas Eastwood, Brindle Lodge. 721. John Noble, Broughton, near Preston. 722. Charles Edwards, Brockley Court, near Bristol. 723. Sarah Rebecca Herbert, Powick, Worcester-shire. 725. William Walton, Leyland, near Preston. 727. James Dixon, Bradford. 729. Henry Worrall, Knotty Ash, Liverpool. Com-mended.—724. R. R. Dodgson, Beardwood, Blackburn. 726. Edward Allison, junior, Park Hall, Chorley.

PIGEONS.

CARRIERS.—788. First, Joseph Riley, Moor Head, near Acerington. 778. Second, Henry N. Pedder, Preston. Highly Commended.—775. George C. Adkins, West House, Edgbaston, Birmingham. 780. Henry N. Pedder, Preston. 783. John Percival, Clent Villa, Harborne. Com-mended.—785.—R. B. Dodgson, Beadwood, Blackburn.

TUMBLERS (Of any other variety).—791. First, George C. Adkins, West House, near Birmingham. 798. Second, Edward Lingard, Bir-mingham. Highly Commended.—794. Matthew Ridgway, Dewsbury. 796. William Wood, Blackburn. 803. Isaac Monkhouse, Kendal. Commended.—793. John William Edge, Aston, New Town, Birning-ham. 804. Isaac Monkhouse, Kendal.

OWLS.—808. First and Second, Richard Moss, Old Swan Station, near Liverpool. Highly Commended.—811. John Percival, Clent Villa, Har-borne, near Birmingham.

FAN TAILS.—814. First and Second, George C. Adkins, West House, Edgbaston. Highly Commended.—817. C. R. Titterton, Birmingham. 819. Francis Alfred Lavender, Biddenham, Bedford. 820. Arthur P. Presdec, Belgrave-street, Belsall Heath, Birmingham. 822. John Wild-ing, Penwortham Cop Lane.

POUTERS OR CROPPERS.—829. First, Henry Beldon, Prospect Place, Eccles Hill Moor, Bradford. 830. Second, Edward Lingard, Birmingham. Commended.—827. Francis A. Lavender, Biddenham, Bedford, Beds. 828. John Percival, Clent Villa, Harborne, Birmingham.

PIGEONS (Of any variety).—847. First, Edward Lingard, Birmingham. 831. Second, George C. Adkins, West House, Edgbaston, Birmingham. Commended.—833. Francis Worrall, Knotty Ash, Liverpool. 835. Thos. Eastwood, Brindle Lodge. 838. Francis Alfred Lavender, Biddenham, Bedford, Beds. 846. William Jackson, surgeon, Bolton-le-Sands, near Lancaster.

in price. *Cut Flowers* scarce. The *Potato* trade is somewhat dull, but superior parcels maintain former rates.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s
" dessert	6s. ,, 10s.
Pears	8s. ,, 12s.
Peaches, per doz.....	5s. ,, 8s.
Nectarines, per doz....	—
Plums, per sieve	4s. ,, 8s.
Grape-apples, per lb....	4s. ,, 6s.
Almonds, per lb.....	1s. ,, 6s.
Foreign Melons, each	2s. ,, 4s.
Figs.....	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 22s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts per bushel	12s. ,, 20s.

VEGETABLES.

Cabbages, per doz. 1s. to 1s. 6d	
" Red, per doz. 2s. ,, 4s.	
Cauliflowers, per doz. 4s. ,, 6s.	
Brocoli per bdl. 1s. ,, 2s.	
Savoy..... 9d. ,, 1s. 6d.	
Greens, per dozen bunches	3s. ,, 6s.
Spinach, per sieve....	— ,, 4s.
Beans	—
French Beans, per half sieve	—
Scarlet Runners	—

Peas, per bushel	—
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz.....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Turnips, per bunch ..	3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s. 6d.
" Cabbage....	6d. ,, 8d.
Endive, per score ..	1s. ,, 1s. 6d.
Celery, per bunch....	8d. ,, 1s.
Radishes, Turnip, per dozen bunches ..	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet.....	2d. ,, 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	8s. ,, 10s.
Sea-kale, per punnet	3s. ,, 5s.
Rhubarb, per bundle	1s. ,, 1s. 6d.
Cucumbers, each	1s. ,, 3s.
Vegetable Marrow, per dozen	—
Tomatoes, per punnet	1s. ,, 2s. 6d.
Mushrooms, per pot	1s. 6d. ,, 2s. 6d.

HERBS.

Basil, per bunch	4d. to 6d.
Marjoram, per bunch	6d. ,, 9d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch ..	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch ..	2d. ,, 3d.
Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, JAN. 11.—The arrivals are moderate for every description of Grain, except Oats from abroad, of which 20,610 quarters are reported. This morning there is a firm tone in the Wheat trade, and a moderate business doing. Barley steady. The dealers continue to purchase Oats cautiously, but Factors do not give way in price. Beans and Peas fully as high. The Flour trade was firm, and lower qualities rather dearer.

WHEAT, Essex and Kent red, old.....	s — s — s, fine — s — s 0s
Ditto ditto new.....	72s 77s — s, fine 79s — s — s
Ditto ditto white old.....	s — s — s, fine — s — s — s
Ditto ditto new.....	76s 85s — s, fine 86s — s — s
Foreign, red.....	80s 88s — s, fine 88s 94s — s
Ditto. white.....	84s 90s — s, fine 90s 96s — s
RYE	52s 54s, fine — s — s
BARLEY, grinding.....	34s 36s, fine — s — s
Distilling.....	36s 38s, fine — s — s
Malting	39s 41s, fine 40s 42s
MALT	74s 75s, fine 77s — s
PEAS, hog, new.....	39s 41s, fine — s — s
Maple	42s 44s, fine — s — s
White	49s 52s, fine — s — s
Blue	54s 56s, fine — s — s
BEANS, pigeon.....	50s 52s —, new 44s 45s — s
Ticks for splitting	43s 44s —, new 40s 42s — s
Harrow	48s 50s —, new 42s 44s — s
OATS, English feed	25s 26s, fine 26s 28s
Poland or brew	28s 29s, fine 29s 30s
Scotch potato	32s 33s, fine 33s 34s
Ditto feed	30s 31s, fine 31s 32s
Irish potato.....	27s 29s, fine 29s 30s
Ditto feed white.....	25s 27s, fine 27s 28s
Ditto black.....	25s 26s, fine 26s 27s
Foreign feed free	24s 26s, fine 26s 28s
Poland or brew	28s 29s, fine 29s 31s
FLOUR, Town made, per sack	70s 72s 75s*, Second 65s 68s
Essex and Suffolk	58s 60s
Norfolk	57s 58s

* This is a nominal price.

LONDON MARKETS.—JANUARY 14TH.

COVENT GARDEN.

We have had, during the week, a fair supply of *Fruit* and *Vegetables*. In Foreign goods there has also been about the average arrivals, and among them some superior cargoes of *Oranges*; also some good parcels of *Glout Morceau* and *Easter Beurre' Pears* from France, which, however, were invoiced at too high a price to find ready purchasers. *Pines* and hothouse *Grapes* still continue good, the latter somewhat advanced

HOPS.

BOROUGH MARKET, MONDAY, JAN. 7.—A fair amount of business doing in fine qualities of Hops, as the quantity on offer is limited, and the samples of brown Hops meet with a moderate sale at somewhat improved prices.

Mid. and East Kents, 75s. 112s. to 130s.; Weald of Kents, 70s. 90s. to 100s.; Sussex Pockets, 65s. 84s. to 95s.

FRIDAY, JAN. 11.—Our market continues to exhibit a fair amount of trade for choice samples, and for the most healthy qualities of brown Hops, and the demand is quite equal to the period of the year.

Mid. and East Kents, 75s. 112s. to 130s.; Weald of Kents, 70s. 90s. to 95s.; Sussex Pockets, 65s. 84s. to 95s.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.	Rowan	80s. ,, 90s.
Ditto, 2nd cut	90s. ,, 130s.	Straw, flail	30s. ,, 36s.
Meadow Hay	90s. ,, 130s.	Ditto, machine	28s. ,, 30s.

POTATO.

SOUTHWARK WATERSIDE—JAN. 7.—The weather continues very mild, and the demand languid at our quotations. Kent and Essex Regents, 90s. to 95s.; ditto Shaws, 80s. to 0s.; York Regents, 105s. to 115s.; Lincolnshire Regents, 85s. to 95s.; Wisbeach and Cambridge Regents, 80s. to 95s.; Bedford Regents, 0s. to 0s.; ditto Shaws, 0s. to 0s.; Norfolk Regents, 85s. to 90s.; ditto Whites, 0s.; Scotch Regents (East Lothian), 85s. to 90s.; ditto (Red Mould), 90s. to 95s.; ditto (Perth and Fife), 80s. to 90s.; ditto (North Country), 80s. to 85s.; Dahlias and Rattlers, 0s.; Blues, 0s.; Orkney Reds (East Lothian), 85s. to 90s.; ditto ditto (Red Mould), 90s. to 0s.; Scotch Cups (Perth and Fife), 70s. to 75s.; ditto (North Country), 65s. to 70s.; Irish Kemps and Clusters, 70s. to 75s.; ditto White Rocks, 70s. to 75s.; ditto common Whites, 0s. to 0s. per ton.

POULTRY.

The past week has been one of scarcity, and prices have increased in consequence. There is an unusual lack of Woodcocks, Snipes, and other wild birds.

Cock Turkeys .. 10s. to 14s. each.	Pigeons.... 10d. to 1s. 0d. each.
Hen Ditto..... 7s. to 8s. ,,	Larks... 1s. 3d. to 1s. 6d. per doz.
Large Fowls.. 5s. to 5s. 6s. ,,	Wild Ducks 2s. 6d. to 2s. 9d. each.
Smaller do. 3s. 9d. to 4s. 3d. ,,	Teal 1s. 9d. to 2s. ,,
Chickens..... 2s. 6d. to 3s. ,,	Woodcocks 3s. 6d. to 4s. 6d. ,,
Geese 7s. to 7s. 6d. ,,	Snipe 1s. 6d. to 1s. 9d. ,,
Pheasants 2s. 9d. to 3s. 3d. ,,	Rabbits .. 1s. 5d. to 1s. 6d. ,,
Partridges... 2s. to 2s. 3d. ,,	Wild do..... 10d. to 1s. ,,
Hares 2s. 6d. to 3s. ,,	

PROVISIONS.

The following are the quotations:—

BUTTER.—Cwt.		HAMS.—Cwt.	
Cork.....	100s. to 112s.	Irish.....	82s. to 86s.
Limerick.....	98s. ,, 102s.	Westphalia	72s. ,, 76s.
Carlow	108s. ,, 112s.		
Sligo	100s. ,, 105s.	LARD.—Cwt.	
Carriack.....	108s. ,, 112s.	Bladdered	76s. to 83s.
Waterford	100s. ,, 106s.	Kegs.....	68s. ,, 70s.
Holstein	102s. ,, 116s.	P.M. beef (304lb.)	105s. ,, 0s.
Friesland	113s. ,, 116s.	P.M. pork.....	95s. ,, 97s. 6d.
BACON.—Cwt.		CHEESE.—Cwt.	
Waterford sizeable	56s. to 62s.	English, NewCheshire	70s. to 84s.
Heavy	54s. ,, 58s.	Cheddar.....	74s. ,, 90s.
Limerick sizeable ..	0s. ,, 0s.	Gloucestershire, dble.	66s. ,, 73s.
Hamhro'	56s. ,, 58s.	Ditto, single	60s. ,, 70s.
Bale middles	0s. ,, 0s.	Foreign—	
Tierce middles	64s. ,, 0s.	Edam	56s. ,, 60s.
American—		Gouda	50s. ,, 56s.
Singed sides	56s. ,, 58s.	Kanta	28s. ,, 0s.
Boneless middles ..	0s. ,, 0s.	American	56s. ,, 62s.
Short middles.....	0s. ,, 0s.		

MEAT.

	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
Beef.....	3	4	4	8	5	0	0
Mutton	4	0	4	8	5	0	0
				Veal.....	4	8	5
				Pork.....	4	2	4
					6	5	0

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11d. the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. ,, 1s. 2d.
Ditto Tegs and		Leicester fleeces...	1s. ,, 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hog-		Combing skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

TO CORRESPONDENTS.

CROOKED-BREADED FOWLS (T. C.).—These can never take a prize if the defect is detected; and as defects are as liable to be inherited as excellencies, they ought not to be bred from.

WEAK SEA-KALE (B. C.).—Your Sea-kale "comes in long, weak, single stalks," because the stools are weak. They were cut from, perhaps, too much last year; were not allowed sufficient rest; or had their leaves cut away too soon in autumn, before they had completed their store for this year's growth.

MARKS FOR HENS (A. and P.).—If we required to distinguish each one from the others, we should put one or more of the small Indian rubber bands, sold for confining papers together, round a leg of each hen. Thus 1. 2. and 3. bands round the right leg would distinguish three hens; 1. 2. and 3. bands round the left leg would distinguish three more; and 1. 2. and 3. bands on each leg would do similarly.

ERECTING A GREENHOUSE (Warner).—If you will buy our numbers 12, 109, and 193, you will have all the information we can give. In No.

109 are working plans of one that was erected by the owner himself for five pounds.

FOUNTAINS (E. H. C.).—The construction of jets for these is a trade. There is a shop in the Strand, near Temple Bar, where they sell them, filters, &c.

PINE GROWING (Amphlett).—We do not clearly understand the description of your tank and pit. Be sure you contrive means for letting the heat into the house by other means than passing through the bed, so that you may have a sufficient temperature without burning the roots. Tubes, or an open space in communication with the rubble, would secure this, to be shut when wanted. If you plunge your pots, use tan, or leaves. If you plant out, use turfy-loam, with but a limited supply of manure of any kind. It is better to give manure waterings when growing freely. As you are a new beginner, when you have any doubts, send us a section of the pit, showing depth, position of tank, &c., with a statement of doubts, and we will do our best to resolve them.

JOYCE'S STOVE.—A paragraph appeared in your publication of the 25th ult., on the effectual means of heating a small greenhouse, by "H. I.," and in it reference was made to Joyce's Patent Stoves and fuel (the latter being very expensive); and, likewise, stating that coke was almost as good for the purpose as the patent fuel. I have, in consequence of the above paragraph, tried coke, but found the house in a few minutes completely filled with smoke. If "H. I." will kindly say whether he used a pipe to his stove to carry off the smoke, or how otherwise he succeeded by burning coke, the writer would feel greatly obliged.—P. C. W.

CLIMBERS (A Regular Subscriber).—See an article to-day.

GESNERA ZEBRINA (Idem).—This is growing freely on the border next the back wall of a greenhouse, but has not flowered. What shall he done with them? We fear there will be little chance of such plants flowering well in such a position, if at all shady, and no more than greenhouse heat at any time given. It might be desirable to see if the greenest would stand the winter, and try if they would blow early next summer. For the mass, it will be best to let them go into a state of rest by withholding water, and when the stems have died down, and the tubers have rested a month or two, to take them up and pot them, keeping them close at first, and in a higher temperature than the greenhouse, and when six or eight inches high, giving them a good position on the shelves; shading from bright sunshine.

HOYA CAMPANULATA (A Constant Reader).—This will be attended to. Treat it, meantime, much the same as another *Hoya*.

A BOOK TREATING FULLY ON PLANTS (Idem).—We have not seen the work to which you refer. No work of limited size can enter into detail upon the culture of flowering and other plants. Any work not larger than our *Dictionary* must be satisfied with giving the most prominent points. There are more full details given in *THE COTTAGE GARDENER* than in any work we know. The writers, in general, pride themselves in going into the smallest minutiae essential to success. The answer to your previous inquiries would show this.

ERRATA.—There are several typographical errors, which mar the sense, in the short article on *Allumada*, page 238, last line but one of the first paragraph, the word "*plants*" should be "*houses*." In the fourth line of the third paragraph, the last word should be "*plump*," instead of "*promote*." Second column, seventh line from the end of the article, "*many ends*" should be "*many buds*."

VINE-TRAINING (A Subscriber).—You seem to have done all right. If you only wish one main stem from your Vine, only leave one. You have three sashes. Some people would have a Vine in the middle of every sash. You might choose to have a shoot for each from one Vine; if so, train your Vine sideways, and take one of the young shoots up the middle. For the sake of your plants you may be satisfied with two; if so, continue as you have begun. Prune all the shoots in to a bud, unless the terminal ones are well ripened, and take two more shoots up next summer.

WORK ON LICHENS (A Subscriber).—We know of no work only on these Cryptogamic plants in English. The British Lichens are described in Smith's "*English Botany*," and in Hooker's concluding volume of Smith's "*English Flora*."

KEEP FOR A COW (An Old Subscriber).—Buy a little book called "*The Modern Dairy and Cow-keeper*." It is by Cuthbert W. Johnson, and published by Ridgway, London. It contains all modern information on the subject you ask about, and much more fully than we could give in an answer to your query.

BARTON POULTRY SHOW.—"I beg to inform you the following mistakes were made in the report about the Barton Poultry Show:—Mr. Boothby's Polands were disqualified, consequently, E. H. Barnard, Esq., got the first, and Mr. T. Holloway second Prize. The prizes for the Ducks were awarded, first to Mr. Turner; second, P. W. Barnard, Esq., and Mr. Owston's commended. Mr. Boothby's Extra Stock Prize was for *Blue Andalusians*, not for *Black-crested Black Polands*.—A POULTRY AMATEUR."

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Advertisements.

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WEEKLY CALENDAR.

D M	D W	JANUARY 22—28, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
22	TU	Geometra primaria.	29.803—29.762	38—18	S.W.	00	55 a 7	28 a 4	rises.	☺	11 45	22
23	W	Geometra brumaria.	29.868—29.807	34—24	N.	00	54	30	5 a 51	16	12 1	23
24	TH	Tortrix spadiceana.	30.003—30.000	37—26	N.E.	00	53	32	7 4	17	12 16	24
25	F	CONV. OF ST. PAUL.	30.023—29.991	38—23	N.W.	04	52	33	8 15	18	12 31	25
26	S	Formica fusca.	30.003—29.871	37—17	S.W.	00	50	35	9 23	19	12 44	26
27	SUN	SEXAGESIMA SUNDAY.	29.972—29.946	34—15	N.E.	00	49	37	10 32	20	12 57	27
28	M	Formica rufa.	29.934—29.847	36—26	N.W.	00	48	39	11 43	21	13 9	28

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 44.1°, and 32.5°, respectively. The greatest heat, 58°, occurred on the 23rd, in 1854; and the lowest cold, 15°, on the 25th, in 1827. During the period 109 days were fine, and on 87 rain fell.

PROFITLESS and troublesome, yet thankless, is the office of a Committee-man of a Society either for the exhibition of the tenants of our gardens or of our poultry-yards. It matters not that he labours honestly, conscientiously, and indefatigably, to promote the Society's interests; to obtain subscriptions; to cut down needless expenditure; to offer judicious prizes; and to have many and good specimens exhibited:—all this will not secure him from unfair criticism and even aspersions on his honesty.

If he exhibits and wins a prize, some unsuccessful exhibitor, totally regardless of whether the plants or the poultry deserved the award, shakes his head, and by looks, if not by words, enunciates his opinion that the Judge has been unfairly biassed. Nay, it does not stop there; for we heard a similar suspicion expressed when the near relative of a Committee-man obtained a prize. "Ah!" said a defeated gardener, "I wish I was a Committee-man's brother!"

Now, all this tells of a remarkably small mind—a mind that can only conceive mean motives to actuate mankind. Such a mind is to be commiserated, for it must be for ever fretted by suspicion; and Shakspeare never penned a truer comment than when he wrote—

"Oh! what a ready tongue suspicion hath."

We have been led to these observations by the following letter:—

"I have forwarded to you the *York Herald* newspaper, which contains a report of the General Meeting of the York Horticultural Society; from which you will perceive that there is a strong objection to members of the Committee being exhibitors for prizes. This (their exhibiting) has long been felt as a great evil, inasmuch as it is thought unfair to the rest of the exhibitors, and makes the members generally look upon the Committee with suspicion and jealousy. Moreover, it has long been thought to be a great means of preventing the prosperity of the Society. In such a locality as York, the capital of the county, it is thought that there ought to be one of the best provincial societies in the kingdom, if the Committee would act with liberality and energy.—A SUBSCRIBER TO THE YORK HORTICULTURAL SOCIETY."

Now, in reply to our correspondent, we reply, that the only questions the subscribers to this or to any other Society having exhibitions need ask themselves are,—Ought not the prizes to be awarded to the best plants exhibited? Have prizes been awarded to Committee-men whose plants did not merit such award? We conceive that no one can answer the first question in the negative; and if so, why should the best plants be

excluded merely because they belong to a Committee-man, and for the purpose of letting worse plants win?

If prizes have been awarded unjustly to a Committee-man, never employ again the Judge who gave the award; and hold up to scorn the officer, or whoever he is, that informed the Judge of the ownership of the plants.

It usually happens that the Committee and officers of a Horticultural Society are those of a neighbourhood who most delight and most excel in the culture of the objects patronised by the Society. To exclude them from exhibiting, would be to insure one of two evils—you would either drive those gentlemen out of the Committee, or you would exclude some of the best productions. Neither of such results can be desirable to any Society. If there is good ground to suspect any member of the Committee of foul play, let the subscribers go in like Englishmen and turn him out; but do not ask any body of Englishmen to sit on quietly the stigmatized tools of the Society, after it has passed a resolution that that Committee is so open to suspicion that they must not show plants at an Exhibition over which they preside.

We have written strongly upon this subject, because there is a growing disposition—born of disappointment—to vituperate and cast suspicions upon the members of Committees, and we warn our readers against leaning to such a course.

If a Committee make a mistake, a mere error of judgment, do not at once condemn them; but wait until repeated errors demonstrate their incompetency, and then turn them out, with no other stigma than that they were not fit for their office.

If a Judge, competent and trustworthy, is obtained from a distance—a Judge who is unconnected in any way with any exhibiting Committee-man; and if he be not allowed to be near the exhibition-room until all the competing pots or pens are arranged and the attendants gone, there can be no just ground for suspicion to spring from. If, however, despite such an arrangement, some one has been so sedulous, and so fearless of doing evil, as to take extraordinary steps to influence the Judge, let the facts *at once* be brought fairly before the Committee; and if they shrink from doing their duty, let a general meeting of the subscribers be summoned, and the Committee be deprived at once of an office which they are then shown to be no longer worthy of holding.

THE CHRYSANTHEMUM: ITS HISTORY, VARIETIES, AND CULTURE.

Is it not very curious that we never heard of the wild plant from which the Chinese Chrysanthemums have been raised? Fortune says nothing about it; nor any other traveller, as far as I am aware. Is it true that it is a native, or grows naturally, in Cochin-China?

Loureiro, the Portuguese missionary, is said to have named it in his "Flora of Cochin-China." A flora of native plants should not embrace foreign plants. Loureiro was thirty years in Cochin-China. Rumphius, a great naturalist, who went out as a physician, and was chief magistrate and commercial agent for the Dutch at Amboyna, where he died in 1706, mentions several double Chrysanthemums as doing better in pots than in borders round Amboyna, one of the Molucca or Spice Islands. That some of the race are natives of Japan, we have the testimonies of Kämpfer and Tournefort. Kämpfer was, probably, the first European author who had seen double Chrysanthemums growing in the open gardens. As physician to the Dutch Embassy from Batavia to the Japanese Court, he arrived at Nagasaki, in Japan, in the autumn of 1690, just in time to see the Chrysanthemums in bloom in the open borders, and he describes eight double varieties of them in his "Amœnitates Exotiæ," published in 1712, under the generic name of *Matricaria*. Tournefort saw them, also, in the gardens round Nagasaki, and growing wild round about there, and in other places in Japan. J. Reeves, Esq., who is as fond of them as any of us, and who lived in China many years, and sent us over many of the kinds, says that some of the varieties were originally imported from Japan; but whether the original plant from which they sprung is a native of China, or of Japan, or of both places; or whether there be more than one original species of them, I believe no one can tell. Linnæus's *Chrysanthemum indicum* looks, from the figure, as if it ought to be rather the parent of the Pompones, instead of the "Chusan Daisy."

Living plants of them were first introduced from China to Marseilles in 1789, and from France to Kew in 1790; but the first of them flowered in Colville's Nursery in 1795. *The Old Purple*, as it was called when I first heard of them, was a tasselled flower of no great beauty. Sir Abraham Hume was among the first amateurs who began to introduce them on his own account, and he had eight kinds of them as early as 1808. After that the Horticultural Society, under Mr. Sabine, took them up very strongly, and sent out, first Mr. Potts, and then Mr. Parks, almost on purpose to collect Chrysanthemums.

Mr. Sabine, who may be said to be the last of the pedantic writers of such diffuse botanical explanations about a plant as rendered the plant and all about it a complete mystery to the rest of the world, filled the pages of the "Transactions" of the Society with such eulogiums of this flower as stirred up the mind of the whole kingdom to patronize them. From 1816 to 1826, or, rather, to Mr. Sabine's downfall with the Society, in 1830, there was no flower half so popular in England as the Chrysanthemum. In the middle of this enthusiasm, I took up the spade, and the current notions of the time, as matters of course; and from 1821 to 1851, when I had, perhaps, the best collection of them in the kingdom, every move about them was at my finger's ends.

The first of them that I saw in the open border was the *Early Blush*, near Culloden, where the last battle was fought in the cause of the Pretender. In the autumn of 1826, four kinds of Chrysanthemums flowered against the wall of the Infirmary garden at Inverness, just above tide-mark. About Forres, Elgin, and on to Gordon Castle, the early kinds from China flowered quite freely out-of-doors in those days; but whether the

new ones would do out so far north is more than I can tell; though I am quite sure that Pompones, which are a hardier race, would flower out-of-doors round Inverness just as well as about London.

That they should grow in Amboyna, in Cochin-China, and in our own pine-stoves, in winter, without hurt, or signs of "drawing," is a most remarkable fact in the history of herbaceous plants natives of temperate climes; and I do not know of another such instance in the whole range of gardening. I have said already, that without cutting them down after flowering, we kept them over the winter on the kerbs of the pine-stove at Altyre, near Forres, when I was a lad, and they stood the heat as well as the *Iciora* or *Paneratium*; but when I wrote that, two years since, I was not aware that the Chinese induced them to sport into varieties by grafting so many kinds on one plant, as then suggested, for the fulfilment of an old experiment which was begun at Altyre in 1825. Since then, I have learned that some Chinese drawings, in the possession of the Horticultural Society, represent grafted plants of them, or rather plants with so many various colours on one head as could be had only by grafting.

Again, I earnestly repeat the advice to carry out this experiment as was explained in the autumn of 1854. A gentleman, in Northamptonshire, keeps some of them in the stove every winter, on purpose to flower in the spring, as he told me himself not three months since. Mr. Cuthill, of Camberwell, had a medal, some years since, from the Horticultural Society, for a large plant of Chrysanthemums in full bloom in May; and I see no reason whatever against a general system of having Chrysanthemums and Pompones in flower from the end of September to the middle or end of May, providing you have the necessary conveniences, and choose to go to the expense of such luxury. But what would you say to a bed of them planted out at the end of April to flower all the summer with the bedding plants? Or, what would you think of a man who could repeat from memory the names of the ten best Chrysanthemums which were in cultivation, every five years, from 1825 to 1855, and who is now "moping" by the fire-side for the loss of his old favoured "Tasseled," yellows and whites; his "Quilled," salmons and lilacs; his "Changeables;" his "Superb Clusters," of this and that colour; his "Starry," buffs and browns; his "Paper Whites;" his "Golden Lotus;" and his "Waratahs" and "Spanish Browns?" They are all gone, and reduced to three strains, namely, the incurved, the half-ball, and the Anemone-flowered, for no mortal reason, as he asserts, than to satisfy a false and ephemeral fancy. Perhaps the old man is right; perhaps not.

That the flowers have been improved to a most extraordinary degree, of late years, is sure enough; that the strains which have been introduced from China and Japan have been curtailed, is equally true; that the incurved strain is now the pet of fashion, let the following lists attest; and to prove that the rapidity of the improvement has been greater than most people in the country would believe, let these lists be compared with the lists in the garden books of 1851 and 1852.

That I have been a novice in Pompones, to this last season, is true enough; but none of the improvements, or the alterations, or the change of lists of the larger Chrysanthemums, had taken me by surprise from the first day I saw them to this hour. Therefore, until you see a better assortment of them than the following, you may rely on this being the best and latest that could be made in this country.

The best Chrysanthemums we have, according to my fancy, are *Queen of England*, *Hermione*, and *Alfred Salter*, in the incurved strain; *Auguste Mié*, in the non-incurved section; and *Fleur de Marie*, in the Anemone-flowered strain. Hence, the small numbers

out of so many good kinds which are placed as first-rate. Every one in my second list would be thought first-rate in some parts of the country, and some of my first-rate kinds may not be thought so highly of by those who grow them solely for exhibitions; but having laid my models before you, all that is necessary for me to add, is that the whole are arranged on the footing of private collections for the conservatory, and for cut-blooms in the drawing-room. A * is placed before the incurved flowers in these lists, beginning with the very best kinds:—

**Annie Salter*, well-known to be one of the best yellows.

Auguste Mié, a splendid red flower, tipped with gold.

Bossuet, a rosy-red, or carmine.

**Chevalier Dumage*, a light golden-yellow.

Conspicua, a fine mottled rose.

**Dupont de l'Eure*, orange and carmine; very fine.

General Marceau, a large buff.

**Hermione*, blush, tipped with purple; a model.

**Leon Leguay*, lilac.

**Le Prophète*, a light golden, or fawn colour.

**Lysias*, orange, or reddish-orange.

**Pio Nono*, Indian-red, tipped with gold.

Prince Jerome, straw-colour and brown tips.

**Queen of England*, light blush.

**Rolla*, lilac, with a silvery tint.

**Stafford*, rosy-purple.

**Sydenham*, carmine-red.

**Themis*, a beautiful rose.

Here, then, is the cream of the race, and if you add *Alfred Salter*, a beautiful lilac flower of the same shape and size as his *Queen of England*, which will cost 10s. 6d. the plant next spring, and the only three that are first-rate among Anemone-flowered ones, namely—

Fleur de Marie, white;

Gluck, golden-yellow; and

Nancy de Sermet, another white, the whole will not complete two dozen, which is the smallest number of the very choicest selection that could be made. A little more than an equal number would include all the second best kinds according to this standard, if we keep out the Anemone-flowered and the newest, which were sold out last June, for the first time, as follows:—

**Albin*, crimson, or all but crimson.

**Arigena*, amaranth, or dark red.

**Cassy*, orange, tipped, or shaded rose.

Comte de Rantzau, nearly-crimson.

**Defiance*, white.

**Elise Pele*, white.

Fortune, rosy-red.

**Jenny Lind*, rosy-sulphur.

L'Ange Gardien, white.

**L'Emir*, light reddish-crimson.

L'Ingot d'Or, golden-yellow.

Madame Boucharlet, white.

Madam Comerson, an old, small, crimson flower, tipped with golden-yellow.

**Madame Lebois*, pink and yellow.

**Madame Poggi*, chesnut-crimson; an old favourite.

**Mars*, light red.

Miss Kate, light lilac.

**Nell Gwynne*, rosy-peach.

Phare de Messine, reddish-chesnut.

**Pilot*, deep rose; a general favourite.

**Plutus*, a golden-yellow.

Poudre d'or, reddish-orange.

**Princess Marie*, rose.

**Rosa Mystica*.

**Trilby*, blush.

**Versailles Defiance*, rosy-lilac.

Vortigern, chesnut-red.

In many large collections in the country, all the above

would be considered first-rate, and the following the next best:—

**Beauty*, peach-blush.

Bivio, violet-carmine.

**Campestroni*, deep rose.

Christine, peach, or deep blush.

**Christopher Colomb*, reddish-violet.

**Duke*, blush.

Golden Cluster, yellow.

**Goliah*, white.

**King*, a fine light peach.

**Lucidium*, white; one of the earliest.

Nonpareil, rosy-lilac.

Phidias (new), rose-blush.

Racine, gold, with brown tips.

**Vesta*, white; a general favourite.

**Warden*, orange.

The following are the best second-rate of the Anemone-flowered kinds:—

Astre du Jour, black.

Astre du Matin, lilacy-peach.

Diamant de Versailles, white and rose centre.

Eclipse, sulphur.

Madame Gorderau, another sulphur.

Marguerite d'Anjon, nankeen.

Marguerite de Versailles, blush.

Marguerite de York, two shades yellow.

Reine Marguerite, white and rose.

Rose Marguerite, clear rose, and white centre.

Titan, golden-yellow.

There is only one thing wanting to make these lists quite complete, that is, to give the habit of the plants, the earliest, next earliest, and late kinds; but that I cannot do, because one-third of the newer kinds have appeared since I left off growing them in 1851, and of them I had only seen cut flowers till I saw them in Mr. Salter's nursery last autumn.

I shall, probably, grow a few of the best new kinds next year, and be thus able to furnish "the one thing" which is now wanting. April or May, or sooner in the spring, is the best time to buy these plants; and I would not top or stop new, rare kinds, as we do with old kinds; I would rather wait till each top would make a cutting, and for one bought-in plant in the spring, I would have three, four, or five plants, for blooming by the end of the season; so that my plants would cost me, in the end, no more than the very old kinds which are now out of date. Although I said that they would bear the heat of the stove in winter, provided they were not cut down in the autumn, that degree of heat is not at all necessary for them. Cold frames would secure them through the winter, so as to come into flower during the spring; and although I have not tried that plan myself, I have no doubt but that, with a good greenhouse, I could bloom a whole collection of them in April and May, and get many of them to ripen seeds, and produce superior varieties.

If I were as young as some of our leading stars, I would undertake to get them to sport from grafted plants, like the Chinese gardeners. For private use, I would not grow them in pots at all during the summer, except the cuttings or layers made between the middle of July and the same time in August. During the first half of September, I would root the plants to flower in the spring, and chiefly from layers, *with no suckers* to them. As soon in October as these showed flower-buds, I would cut them back a little, to get rid of all the autumn flower-buds, and no more; I would then give them a shift, and a close frame treatment, to break all their buds; then rest them for the winter.

D. BEATON.

NEWSPAPERS SENT TO FRANCE.—The postage on all newspapers sent from this country to France must be *prepaid*. The postage henceforward to be prepaid will be found, in most instances, to be less than that which has hitherto been paid, in France, on delivery. The payment which this country makes to France for delivery of newspapers and other printed matter, and for her share of the cost of conveyance, being by weight, the rates of postage also are regulated by weight.

PLANTS THAT MAY BE IN BLOOM IN JANUARY.

KEEP in mind that these lists are chiefly designed for those enquirers who have a pit, a greenhouse, and plant-stove; though others may take from them just what their circumstances want.

STOVE PLANTS.

Ardisia crenulata, *Æchmea fulgens* and *Mertensii*; *Begonia fuschoides*, *manicata*, *albo coccinea*, *coccinea*; *Bilbergia iridiflora* and *pyramidalis*; *Bletia verecunda* and *Shepherdii*; *Canna aurantiaca*, *coccinea*, *iridiflora* and *variabile*; *Centradenia rosea*, *Centroclinium appressum*; *Cymbidium sinense*; *Cypripedium insigne*; *Croton*, *Dracæna*, *Maranta*, and *Caladium*, for fine variegated foliage; *Dichorisandra thyrsiflora*; *Epiphyllum violaceum* and *Russellianum*, *Euphorbia Jacquiniflora*, *Francisceæ acuminata*, *uniflora*, or *Hopeana*, and *latifolia*; *Gardenia radicans*; *Gesnera zebrina*; *Goldfussia anisophylla*; *Hippeastrum*; *Justicia flavicoma*, *coccinea*, *formosa*; *Jasminum undulatum*; *Oldenlandia Deppiana*; *Passiflora Buonaparteæ*, and *princeps*; *Poinsettia pulcherrima*; *Spermadietyon azureum*, *Zygopetalum crinitum*, *Mackayi*, and *tricolor*.

GREENHOUSE-PLANTS.

Andersonia Sprengelloides, and others; *Acacia* as last month. Bulbs similar to last month forced; Carnations of the tree or perpetual kinds. Camellias, *Correa speciosa* and *pulchella*; *Cuphea platycentra*; *Cinerarias*; *Cytisus* and *Genista*; *Cyclamens*, *Daphnes*, *Epacris*, *Erica hyemalis*, *Wilmorcanæ*, *Linnæoides*, &c.; *Fuchsia Dominiana*, *Gastrolobium acutum*; *Heliotropium*, *Hermannia alnifolia*; *Geraniums*, as last month; *Jasminum ligustrifolium*, and *nudiflorum*, hardy; *Linum monogynum*; *Lachenalia tricolor*, and others; *Myoperum parvifolium*; *Mignonette*; *Oxalis marginata*, *sanguineum*, *tricolor*, and *variabilis*. *Passiflora*, as last month, when not close pruned back; *Pittosporum tobira* and *undulatum*; *Primula*, as last month; *Rhododendron arboreum* varieties; *Salvia fulgens*; *Scilla tenuifolia*; *Saxifraga sarmentosa*; *Sparaxis tricolor*; *Trichomanes bulbocodium*; *Violets*, *Neapolitan*, *Tree*, and *Russian*.

DWARF HARDY PLANTS THAT WILL FLOWER, IF PROTECTED, IN PIT OR GREENHOUSE, such as *Arabis*, *Aubrietia*, *Arobus vernus*, *Primroses*, *Polyanthus*, &c., and *Pinks* when forced; also *Musk* and *Lily of the Valley*.

BULBS that require protection, and scarcely any forcing to bring them into bloom, as *Bulbocodium vernum*; *Leucojum vernum*, *multiplex*, *pulehella*; *Narcissus albicans*, *floribundus*, *bulbocodium*; *Scilla amœna*, *bifolia*, *non-scriptus*; and *Snowdrop* and *Crocus*.

HARDY SHRUBS that have been regularly forced. *Amygdalus nana*, *incana*, *pumila*; *Cerasus prostrata*, *pygmæa*; *Berberis dulcis*, *Daphne Mezereon*; *Deutzia gracilis*; *Kalmia glauca* and *rosmarinifolia*; *Persian Lilæ*; *Rhododendrons*; *Roses*, chiefly *Chinese* and *Tea*.

A FEW HARDY ANNUALS, grown in a pit, or frame, would also come in, as *Nemophila*, *Collinsia*, *Coreopsis*,

Sweet Alyssum, *Virginian Stock*, &c., sown in August, or at the end of July.

I shall now glance at a few things not mentioned last month; and first, among the stove-plants,

ÆCHMEA FULGENS, *BILBERGIA*, and *TILLANDSIA*, may be treated much the same as Pine-apple plants. They are easily propagated by division and by suckers. After flowering, the stem is of little more use than as a nourishing foster-mother to the young suckers. When done flowering, these old shoots should not be removed until the suckers are some size; then is the best time for dividing the suckers, and repotting. If a small plant is approved of, one or two suckers, or fresh stems, may be used; and when a bush is wanted, from five to half-a-dozen of such suckers or more should be kept. Peat and loam will grow them well. In summer it will scarcely be possible to give too much heat, ranging from 75° to 90°. In autumn they should be much cooler, and be kept dryish. In fact, the dish formed by the leaves in the centre of the plant will be apt to hold too much water if there be much drip in the house. A little water standing in the hollow will do no harm; but if too much, the water had better be turned out, now and then, by reversing the plant, as too much is apt to injure the flower-stem. The plants should be rather under-potted.

BEGONIA MANICATA, independently of the graceful profusion of its small flowers, is interesting from the underside of the leaves being all covered with ruffs as elegant as ever went round the neck of a fair lady. It requires peat and loam, a close atmosphere and a high temperature in summer. Little water, and a low temperature in autumn and the beginning of winter; a higher temperature to start it well into bloom, and then it will do well in a warm conservatory, and keep a long time in bloom there. *Albo coccinea* is a low-growing kind, one of the most beautiful, but requiring constant stove treatment, and but little change in the way of withholding water. Rough, rich peat, with a little cow-dung, suit it best. *Coccinea*.—This is a splendid thing when well managed. The secret is, to get as many shoots started as possible at an early part of the season, and to give them every encouragement to grow, with as little shade from the sun as possible, until towards October, then gradually to expose them to more air, to withhold water, and reduce the temperature to from 45° to 50°. When placed about the end of the year, or some time in January, or later, into a temperature of from 60° and onwards, and supplied with warm water, the points of the shoots will throw out masses of scarlet flowers. A small plant, from the smallness of the flowers, makes but little show.

BLETIA SHEPHERDII, &c.—These are neat ground Orchids, very pretty, and easily grown, in peat and loam, requiring a little rest just after flowering, and rather a lower temperature and less water before the flower-stems appear.

CANNA.—These mentioned bloom chiefly in the early part of the season. When done flowering, a short rest should be given them, not giving much water until fresh shoots or suckers are come freely, when they should be divided or repotted, and grown on in summer and autumn, with as much sunshine under glass as can be given them.

CENTRADENIA ROSEA.—I forget the name of the newer species or variety, but both are good, and form pretty, compact, little bushes. It propagates easily by cuttings in a hotbed in March, and would flower as a small plant in the following winter and spring. To get a fair specimen requires two or three years growth. The flowers are small, and produced in great numbers. Peat and loam. Summer temperature 70° to 80°; winter, 50° to 60°; with a good rise from sun heat when in bloom.

CYMBIDIUM SINENSE.—This is another ground Orchid, having nothing to recommend it in its sedge-like leaves, or dull brown flowers, produced on a long spike, or stalk;

but the odour of these flowers is delicious. It does best when divided after flowering, kept in rather small pots, and not too much of the plant in them, grown in a high temperature, and with plenty of moisture in summer, and kept cooler and drier in autumn and winter, until you wish the flower-stalk to appear, when more heat and moisture must be given. Peat and loam, with pieces of charcoal and rotten wood, will grow it well. Drainage must be attended to.

CYPRIPEDIUM INSIGNE.—This ground Orchid is still more easily grown; requiring, for most of its period of growth, a temperature between the greenhouse and stove; in fact, many manage it in a warm greenhouse. It likes fibry-loam and peat, and dressings of old cow-dung, and is generally in bloom, showing off its singular slipper-like flowers, in December and January. It is propagated by division.

DICHORISANDRA THYRSIFLORA.—This splendid plant is worthy of great attention. When done flowering, and allowed to rest a few weeks, as soon as fresh growth is commencing it should be divided, or repotted, into fibry-peat and loam, receive a moist temperature of from 60° to 85°, and manure-waterings to give strength to the shoots. As the autumn approaches, the temperature may be gradually lowered from 10° to 15°, and less; water, and all the light possible being given. A slight rise in the temperature will bring the flower-stalks; and when partly expanded they will bloom well in a warm greenhouse.

GARDENIA RADICANS.—A plant or two, well set with buds, and placed in bottom heat, in a forcing pit, in December, would yield fragrant flowers now.

FRANCISCEA UNIFLORA, LATIFOLIA, and ACUMINATA.—This genus is frequently joined to *Brunsfelsia*. *Uniflora* is also called *Hopeana*, and it and the large-flowered *latifolia* are very sweet-scented. They bloom freely in bushes from eighteen inches to six feet in height. They grow freely in peat and loam, and bloom most profusely on the well-ripened wood of the previous season. Prune when done flowering, but not very closely, merely to give shape. Keep the plants, at first, in a hothouse; by June they will do admirably in a cold pit, kept close at first, and with more air afterwards. In the early part of winter, and before you wish to bring them into bloom, they will keep very well at 45°; 10° to 15° more will be necessary to bloom them.

R. FISH.

(To be continued.)

ORCHIDS BEARING COOL TREATMENT.

(Continued from page 280.)

LÆLIA MAJALIS (May-flowered).—A lovely species from Central America, where it grows on the top of trees, exposed, at times, to a very low temperature. The flower-stem is short, the flowers large, frequently six inches across, beautifully spotted and netted. This plant, like many others, has been found difficult to grow in a sustained high temperature, saturated with atmospheric moisture. The late G. Walker, Esq., of Eastwood, near Nottingham, was the first to point out its true cultivation. He says, "When the spring growth was completed, I removed the plant into a greenhouse well ventilated, the door of which was always open, winter and summer; the night temperature was about 45°." Here he allowed it to remain till it began to grow, when it was placed on a block, and then kept in the very coolest part of a cool orchid house (not needful in my opinion); the heat in summer, by day, never exceeding 75°; by night 65°; the door of this house leads into the greenhouse, which stands half open daily. Here, in this draught, the plant hung, and produced a bulb thrice the size as the two previous; when completed, the plant was again placed in the greenhouse until the shoot broke

forth in January, when it was again removed into its former airy situation in the cool orchid-house, and very soon the flower-stem burst from the centre of the new shoot, and the flower expanded on the 20th, 5 $\frac{3}{4}$ inches across each way. He adds, "if the above treatment is followed, I am certain any one may succeed." I differ from this very excellent mode in one or two particulars. I do not think it was necessary to remove the plant out of the greenhouse at all. By keeping it there the only difference would have been the rest would have been prolonged, and the bloom would have appeared at the true season, namely, May, and would have been, I would not say larger, but much more highly coloured, and would have lasted longer in bloom. I would, also, place the block amongst crocks, as recommended for *E. vitellinum*. If suspended from the roof the crocks might be placed in a basket, and the block laid in amongst them. Again, Mr. Walker says he hung the plant up in a greenhouse, the door of which was always open, winter and summer. This, I have no doubt, was a slip of the pen. He could not mean that the door stood open in very severe frosty weather in winter. If it had, I opine the frost would have done for his favourite plant.

LÆLIA SUPERBIENS (Stately).—This noble plant is well known to all the visitors of the Horticultural Gardens at Chiswick. It was the glory of the plants there; but now, alas! the glory has departed. There may be some readers of *THE COTTAGE GARDENER* that have never seen this plant, therefore I will briefly describe it. The pseudo-bulbs are from a foot to eighteen inches long; the leaves are a long egg-shape, large and stout; the flowers are produced on stems from six to eight feet long, each stem bearing from eighteen to twenty large flowers. They are rosy-pink, striped with a darker colour; the lip is of a rich crimson and yellow, striped with maroon. This is a brief description of this truly grand plant. The one alluded to at Chiswick had frequently five, six, or seven stems on it. It hung in the air of the cool stove, had neither moss nor peat near it, and yet grew exceedingly well, increasing in size every year. I really think it measured five feet across, and as much high, and besides that, was a dense mass of pseudo-bulbs and foliage, so that you could not see through it. It was purchased by E. Fairrie, Esq., of Liverpool, for a very high figure (sixty guineas, I believe), and very cheap, too, at that price.

Now this magnificent species, I venture to assert, will thrive best in a cool house, little warmer than a common greenhouse. I see it in various places, but in very few thriving well; and for this reason, simply, it is kept too hot both summer and winter. Mr. Skinner says, "its native habitat is very cold." Surely, that is authority sufficient for me to place this fine plant amongst those that will bear a cool treatment.

T. APPLEBY.

(To be continued.)

ECONOMIC USE OF HEATING MATERIALS.— USES OF VINERIES.

THERE are few things in gardening of more consequence than duly economizing the various heating materials at command, for, however amply a place may be supplied with these useful appendages, it is only fair to expect that they should be made to perform a corresponding amount of duty: or, in other words, heating substances, be they fermenting articles or fire-heat, applied in one shape or other, ought to be so well worked as to produce the greatest possible results. Houses that are heated in winter ought to be pretty well filled with the different things wanted, be they flowers, fruits, or vegetables; taking care that disease

does not find its way thither, owing to the heterogeneous mixture it contains.

The amateur who has only one or two houses, naturally wishes to make the most of them, and, supposing he has an ordinary Vinery at work, a few notes of the purposes it may be turned to, will, no doubt, be useful to many of your readers.

Let us suppose the Vinery in question be an ordinary lean-to house, with a bed in the centre for heating materials, and a path either all around it, or along its south side, and outside of this path, and still nearer the front of the house are the heating-pipes, or, if it be a flue, it is all the same.

Now, the central bed being supposed to be filled with heating material, tan, or leaves, or leaves and dung, the fine, moist steam from this will be of great service in making the Vines break regularly, but until they do so, and, in fact, until they form leaves in some quantity, the bed may be used as a forcing-bed for anything that may be wanted early.

Dwarf Kidney-beans vegetate very well in such a bed, though they are generally too far from the glass to do well in the dark days; but after the middle of January they succeed pretty well until the leaf of the Vine expands, when they ought to be removed, as well for the welfare of the Vines as for their own benefit.

Bulbs of various kinds come on tolerably in such a place, and, in fact, all forced flowers are procurable in such places. *Rhododendrons*, put in early in autumn, flower in due time, and likewise *Roses*, *Lilacs*, and the various hardy shrubs that are used for forcing. Among them, nothing succeeds better than *Dentzia gracilis* and *Weigelia rosea*. Of course, the various *Herbaceous plants* used for forcing may also be put in at the same time, and they will all prosper, more or less, according to circumstances; the most useful, perhaps, being *Dielytra speciosa*.

It is easy to perceive, that in such a bed there is no necessity for the whole produce to be of one article; on the contrary, the amateur will, probably, wish to have variety, and will be tempted to crowd as much into the place as possible. This, of course, may be carried to an extreme, for vegetation of all kinds, except the lowest, as Mosses, Lichens, &c., all require a greater amount of light and air than they would obtain in a very crowded hotbed, where the air is necessarily inclined to be stagnant, in spite of the best ventilation that can be given. Due caution must, therefore, be exercised to obtain a supply of fresh air; for, besides the foliage of the plants shading each other, they derive a considerable amount of food from the atmosphere, which they cannot all do when the place is so studded with plants that the foliage is too large for the food provided, or, in other words, the limited volume of atmospheric air is insufficient to maintain so large a vegetation in an healthy state, consequently, a sickly growth takes place, and other evils arise. It is needless to say that other agents are at work at times as well.

On the other hand, plants may be packed as thickly as you like while they are only in the transition state, from the usual period of rest to that of activity. *Lilacs*, and other deciduous plants and *Bulbs*, may be as thick as you choose, until they expand a little, when more room must be given. *Rhododendrons*, and other ever-green shrubs, may be indulged with a little more room. Yet these plants are said to consume more air, when in a growing state, than when in that stationary one in which they usually are for several weeks, or even months, prior to expanding their blooms; but a few of these mixed with the deciduous things do very well, and the fine bright colours of the *Azaleas* render them equally favourites; *Kalmias*, and other things, being added at pleasure; while those who have extensive plant-houses will have other plants of the "New Holland" section coming forward at the same time.

It is, however, necessary to say here, that as the Vines are supposed to be the legitimate occupants of this house, some attention must be paid to them, and their welfare must always be kept in mind as being the most important. Therefore, when the buds begin to break and put forth leaves, let the other plants be gradually removed, especially those, which, like the Vine, have foliage in a growing condition. *Bulbs* not started, and other things in a like condition, do no harm, and, in fact, take none for a time; but a crowded house is incompatible with success; therefore, thin it well betimes. This is more easily effected than might be thought at first. As the various plants approach a flowering condition they may be removed to a cooler place.

In such Vineries, the Vines, usually, are planted inside; but with an extensive range of border outside, the front wall being supported on pillars, between which the roots of the Vines ramify in all directions; but I merely mention this, to enable me to allude here to the revival of an excellent old practice, that of covering the border outside with some heating material. Tree leaves are as good as anything, and when laid on about a yard thick, or more, retain their heat during the winter. This is supposing the leaves to be of good kinds—Oak, Chesnut, and Beech being the best; and the worst, Elm and Sycamore. In the present season I have adopted another plan, or, rather, used additional precaution, to obtain warmth outside, by taking off the surface-soil to the depth of about six inches, there being no roots nearer than that depth, and I anticipate the roots near the surface will rise and run into the leafy matter, which, if they do, I will allow it to remain, and add more as wanted. I have seen good results from this plan; and though we cannot expect the roots of Vines, or, in fact, anything else, to exactly meet the surface during the scorching part of summer, it is easy to remove this covering of soil every autumn before forcing time and supply it as above. For much as has been said on this subject, it is not fully defined yet which is the best way to manage such things; and expensive coverings have been introduced, as well as, in some cases, underground heating contrivances, both of which are, no doubt, good in their way, but their expense places them beyond the reach of the many; and it is not proved yet that better fruit have been obtained that way than by the old-fashioned mode detailed above.

In reference to the extent of border a Grape-house ought to have, I saw an extraordinary instance, last year, of what a Vine could do in a confined position. The house was an old one, and far from being in good condition. Inside there was a bed about two-feet and-a-half deep, surrounded by brickwork, and at one end of it a Vine, originally in a pot, had rooted through and obtained possession of the leafy bed, but the proprietor, unwilling to allow it the whole of this bed, boarded off a small portion for the Vine, and removed all the rest at the same time. I believe he destroyed the pot without disturbing the roots; but this Vine, with no greater scope of root-room than might have filled a good-sized earthen pot, rapidly progressed, and covered the whole house not only with its foliage, but with its fruit also; for I never saw a heavier crop—the bunches, certainly, were not large, but they coloured well. This, of course, was not all effected in one year, and the proprietor, at my suggestion, removed the boarding partition a little further from the roots of the Vines, giving some open leafy substratum to the added part. This was like "a shift" to potted plants, and the result was very satisfactory. The secret of the success remains to be told—the plants were fed by liquids properly enriched; and when I say properly enriched, I speak in a qualified sense; for all liquid-manure is not properly given; some, in fact, being so exceedingly gross in substance, and so strong, that it is questionable if it does not sometimes do more

harm than good. In the instance alluded to above, the issue showed that a proper course had been adopted, and by adding a little more room each year, I have no doubt but the system might be continued for an indefinite length of time. As the space became increased, the plant would become proportionately less the creature of circumstances, and would attain a degree of stability which would not suffer so much from any careless hand forgetting the watering-pot at the proper time; for the Vine, after all, requires a considerable space to support itself in a healthy, vigorous state for a series of years.

J. ROBSON.

WHAT SHALL WE HAVE FOR PROTECTION AGAINST FROST?

As a practical man, in common with all gardeners who have to carry on vegetable forcing, I have felt the want of a good protecting covering for pits, &c.; and having given considerable attention to the subject, with an endeavour to find one, the remarks of Mr. Robson, in last week's *COTTAGE GARDENER*, were read by me with interest. Looking back to what has been written on this subject, it is surprising to find that no advance has been made. Some two or three years ago there was a very sensible article inserted in your *Journal*, upon the articles used for protecting purposes; their merits and demerits were commented upon; and the conclusion to which the writer came was, that wooden shutters were the best, and, though dear at first, were the cheapest in the end. Mr. Robson now comes to the same conclusion; but they cost too much.

I remember, a gentleman wrote, a few weeks after, stating that he could not get a good shutter made under ten shillings, which is too much to be generally used; but could not shutters be made of some cheaper material? I feel convinced, that to be available in all weathers, no protecting article can be so effective, and so easily applied, as a shutter. All articles that are not waterproof are heavy when wet, and, when frozen, or half frozen, so as to be not flexible, as is the case with all mats, whether of bast, straw, or reeds, they are very awkward to put on, and you can scarcely destroy a mat sooner than by bending or doubling it when frozen.

Then, those materials that are waterproof, unless fixed to a frame so as to prevent their being bent in frosty weather, will crack, even India-rubber (unless vulcanised, which is too expensive) will crack when bent during a frost. Coconut fibre material I have thought of a long time ago, but it has some serious defects. I doubt whether it can be made closely woven for the same price as hempen or woollen fabrics. Then, it has a very rough face, which would take much stuff to waterproof it, and this, if put on thick, would crack, and perhaps be rather heavy. However, we do not know what can be done with this stuff yet.

Looking at these things, I am driven to the conclusion, that waterproof shutters of some kind are the only effective way to protect all kinds of forcing structure in the changeable weather of a British winter. I imagine this present mild weather will be a trap for many that are napping over the idea that the winter is over. What has Mr. Beaton to predict this season? or is he going to follow Mr. Murphy, who, being right once, thought it wise not to try again?—ANTI FRIG.

NOTES FROM PARIS.

WHEN noticing, in a former communication, the new style of ornamenting lamp shades, I forgot, if now I recollect aright, to add, that the lamp generally used here in sitting-rooms, drawing-rooms, &c., is that which is advertised in English papers as the *Moderator* lamp—quite a tradesman's way, by-the-by, of rendering the original.

A history of lamps for the last half century would show us many crude contrivances, introduced from time to time, and all recommended for their convenience and their capability of throwing a little light upon the subject. Doubtless, those at present in use will, some day or other, share the fate of all their predecessors; but there is every reason to

think that that day is far off, for the principle on which the French lamps, are constructed is tolerably sound, and likely to meet all requirements for a long time. Besides the "*Moderator*" lamp, used for sitting-rooms, there is another, which is extensively used by mechanics and artificers generally. Like the other, it gives a beautiful light, and it can be raised or lowered at pleasure; excellent for close working, and it also throws out the light as well as the other. For gardeners, and other persons in the country, who study and learn in the long winter evenings, this is certainly the best contrivance I have yet seen, whether as to efficiency or economy. And let me observe, that studies do not go on well with a dismal light. I therefore trust that this note may not be considered out of place. This lamp burns about one son of oil per hour.

The difficulty of obtaining such works as *THE COTTAGE GARDENER*, through the post-office, at anything like a reasonable cost, has debarred me, hitherto, from receiving it by that channel. Other modes of conveyance are not regular, and but little to be depended on. I have not seen any number for this past year since last January; and the volume for 1854 only reached me in June last. Improved postal arrangements, however, are about to come into operation, and one of the first benefits which the new law will effect for myself will be that of enabling me to see your weekly contributions with some degree of regularity. Our correspondence will then be more direct and more animated. From these remarks, it will be understood, when I say, that but for a private note from a friend in London, I should not have known, for a long time after, that any of your readers wished me to give additional information respecting the construction of bouquets. And as it is just possible, that since that time other correspondents may have desired me to furnish a few notes on other subjects—to explain what may have been obscure, or to correct what may have been wrong—I hope they will now understand, and pardon what must have appeared to them either as a want of politeness, or a want of attention. Let me just add, while on this topic, my humble meed of praise for the excellent manner in which *THE COTTAGE GARDENER* continues to be conducted, and my satisfaction in perusing the able articles of its more professional contributors. The portraits and biographies, with which it is now embellished, constitute a new feature in horticultural literature, and fill up a blank which had been too long overlooked.

We are now in the middle of winter, and I have thought it might be the most suitable time for offering a few notes on the construction of ornamental rustic baskets, flower-stands, &c., as, no doubt, there are many young persons among your readers who might like to try their hand at something of this kind in the long evenings. But since the idea first occurred to me, I have felt that it would be difficult to make my directions sufficiently clear without drawings, and drawings require to be engraved. If, therefore, this subject should be considered interesting enough to warrant something like careful detail, I shall look for an intimation to that effect, and send you an article forthwith. (Pray do so.)

The art of making ornamental rustic baskets, like many others here, is carried to great perfection. Some of the designs are very beautiful; others very plain and neat; but all, apparently, worked out with such ease as makes imitation a very simple affair. This is, also, an art which those who have a little time to spare could turn to advantage; and though I have no wish to add to the long list of things which young gardeners are expected to learn, I do think that every young gardener should learn some one thing or other which may mitigate the misery of being out of a situation, and out of work, in the event of such a calamity ever overtaking him. A German nobleman, as we are told, once asked the hand of a young lady in marriage. The father of the young lady was a shrewd old man, who had seen a good deal of the world; and who, to use an expressive, though somewhat vulgar, phrase, knew "a thing or two." "No," said the old gentleman, after hearing one of the most tender appeals, "your title and rank would avail nothing in the event of war or revolution. Learn a trade that will enable you to earn a living in any country, or in any circumstances. Then you shall have my daughter." In less than twelve months the trade was learned, and the

prize won. In six months more, the nobleman was a refugee, earning his bread by making *fancy baskets*, and making them so cleverly as to obtain the patronage of all the wealthy inhabitants of the foreign capital in which he had sought an asylum from the political troubles of his native land.

Alas! there is in this wide universe but little that is universal. Most of us require two strings to our bow (beau?)—sometimes more; and after all, of the many acquirements on which we set our hearts, the most valuable is that by which we earn our daily bread. We have all, some time or other, a rainy day, or a dead season. We are all liable to be frozen out, or frozen up.

In the earlier part of last year, I sent you a sketch of my new layering pot, which has been noticed, since then, in other journals, both in England and on the Continent. As you were the first to publish that, I now send you two more off-hand sketches, for the purpose of showing other modes of performing the operation of layering above ground, on a more extensive scale than could be attained by the pots.

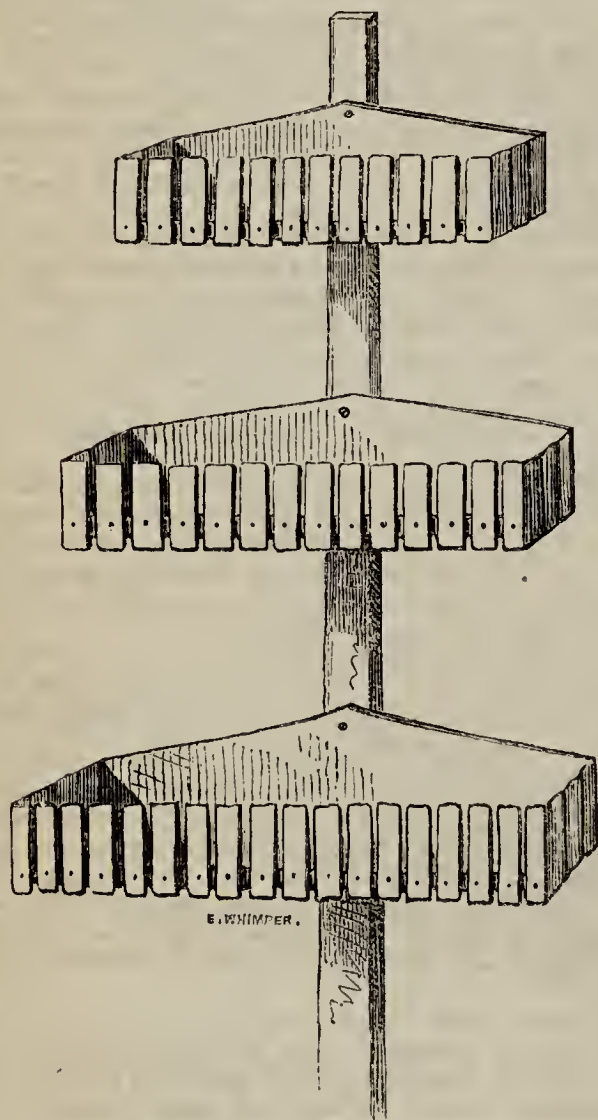
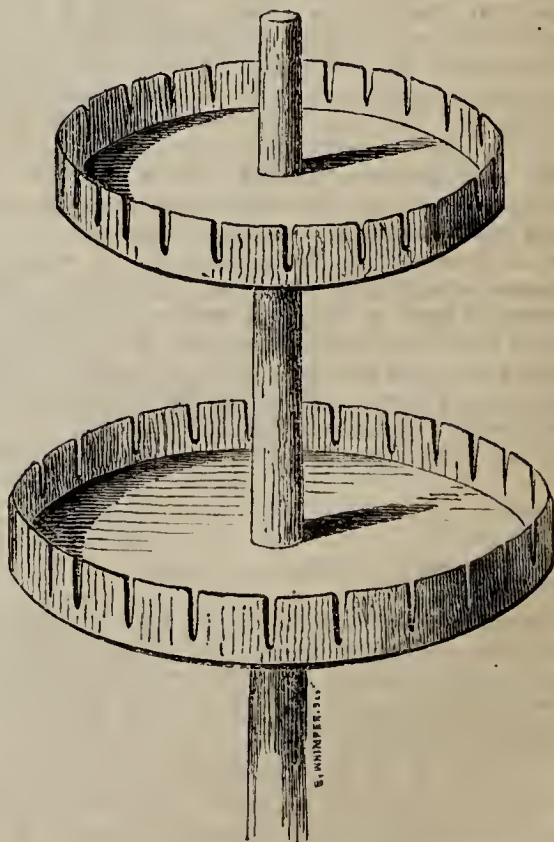


Fig. 1. shows three open boxes, or whatever they may be called, mounted on a stout stake. Their average length is about thirty inches; their width, that is, the measurement from front to back, about six inches; that of the front and two ends, from four to six inches high. I only give these measurements provisionally, for I have not yet had models prepared, in order to see if such dimensions might be sufficient; but I imagine that something of the form indicated will be found the most suitable for ordinary purposes. The back and bottom of the box are made of stout deal, say three-quarters-of-an-inch thick; the front and ends are formed by short laths nailed on at regular distances, so as to be separate from one another about half-an-inch. The lowest of the three boxes shown is drawn to something near this scale with respect to length, and the other two are shorter; for I have presumed, that in layering the branches of young trees, especially of *Coniferae*, more shoots can be

obtained near the bottom than at the top. It is very easy, however, to determine the length of the boxes, when the tree to be operated on has been chosen. Perhaps it will be found, from the position of the branches of the tree selected, that no more than three boxes can be used on the same stake with advantage; and, in many cases, two will be sufficient. But, of course, I leave all such points to be settled by experience and practice. With respect to drainage, I do not think that holes in the bottom can be necessary, seeing that there are so many openings at the sides; and as the shoots layered are nourished by the parent tree till they are established, I apprehend no injury to them from the water dropping from one box to another, and such dropping can only be at the ends in wet weather; for I suppose the fronts of all the boxes on one stake to be the same plumb-line. In ordinary circumstances, a single nail should be sufficient to secure one of these boxes to a stake, and it is desirable to avoid all unnecessary hammering, and preserve the box as long as possible. It must be observed, too, that, by means of these openings, the operation of layering can be performed with unusual facility and dispatch. It is not necessary to be very nice about stopping up the openings so as to prevent the soil from running out. Every gardener knows how to deal with such a case.

Now, here is a little work for the handy young men of gardens and nurseries, or, indeed, anybody who likes to handle a saw, plane, and hammer; and I would just ask those who, from their practical knowledge of such matters, are best fitted to give an opinion, whether light stands of this kind, which may be easily made, are not preferable to the scaffolds which are usually erected for the support of a few pots? Or to the still more troublesome process of half uprooting a young tree, and laying it on the ground for the purpose of layering a few of its higher branches?

With regard to the stake, I think I need not speak of its length or strength; but it should be made so as to afford some little support to the box. This could be effected by making a notch, on which the box might rest at the back. When we consider that the box itself is not provided with ends that might add to its strength, some assistance of this kind seems necessary. The same object could be attained by a division in the centre of the box. But, after all, I think, if the back and bottom are made as at first directed, no auxiliaries will be wanted, even when the weather is wet, and the soil in the box is more than usually heavy; for it



will be observed, that each box is only about four inches from front to back, inside measure; at least, that is what I suppose to be sufficient in ordinary circumstances. Now

I calculate that one of these boxes can be put together in a very short time, if dispatch be an object; and with the most insignificant expenditure of material, if economy be another. Suppose you have no boards, then twenty or thirty inches of a stout branch would serve the purpose. Suppose you have no laths, then short lengths of thickish willows would do. But where there is no lack of time or materials, then the boxes may be made, not only strong, but neat and sightly.

Fig. 2 is another form of the same contrivance, which I propose to be made by a potter. I have drawn it round, but it might have any other form; perhaps a square would be found the most convenient. I have supposed the circumference of this form to be about six inches from the stake which passes through the centre, and on which it is supported by a nail, or wooden peg, driven into the stake at the point chosen.

I propose distinguishing these several contrivances by different names thus:—

High-layering Pot.

High-layering Box.

High-layering Pan.

These names, I think, will sufficiently indicate the particular purpose for which the objects are intended, as well as their different forms. In this way, we may know what we are talking about.

Since the 20th of December, or thereabouts, the weather has been uniformly wet or damp, the glass averaging 40°: the lowest temperature was on the last day of the year, when the glass stood at 35° Fahr. But we have had several fine days at certain intervals. New Year's-day, for instance, was as clear and sunny as could be wished for on such an auspicious occasion.

In the centre of the *Place du Carrousel*, formerly quite open, a garden of about fifty yards wide has lately been formed, inclosed with a neat railing, and planted with ornamental trees and shrubs. This will certainly be not the least attractive of the many pretty things in this quarter, where, in summer time, the glare of the white sculpture and carvings is rather fatiguing for the sight.

Formerly, the *Place de la Concorde* was laid out in gardens, and I cannot but think it was bad taste to remove them. Now, there is nothing but polished stone, which, for eight months in the year, makes *la place* almost insufferable. People cross it as famished Arabs cross the burning sands of a desert, not caring to look much about them.

The open air markets, at present, are chiefly supplied with young fruit-trees, ornamental shrubs, and miscellaneous plants, bulbs, roots, &c.

It may seem strange that people in the country should come to Paris in order to buy trees and shrubs; but such is the fact. It may be that nurseries are not numerous in the country, at least, beyond the limit of one or two miles; but it is certain that these things are sold cheaper in Paris than on the other side of the barriers. But this is not the case with most of the articles of household consumption. I have observed among the people generally, in this quarter, a marked fondness for the *Ivy*. It is by no means "a rare old plant" in Paris, where it is considered equally capable of luxuriating with or without light. I have seen it trained up the carvings of large mirrors on the mantelpiece, and even over the walls of saloons, in which there was but little daylight at any time. The *Ivy*, like the sparrow, appears to be equally at home in all circumstances. Large quantities of it are sold in the markets, during the winter months, for training up the sides of windows both inside and outside; also, for covering trellises on balconies and similar places.

Flowers, such as bouquets and plants in pots, continue rare and high priced. The principal kinds are still Heaths, Neapolitan Violets, forced Lilacs, white and variegated Camellias, Roses, Hyacinths, Van Thol Tulips, and one or two more early greenhouse sorts. Within the last few days some Ranunculi and small forms of Rhododendron have appeared; but a great many bouquets are composed simply of Neapolitan Violets, Wallflower, and Heaths; sometimes a single Camellia is added at the centre. For ten or fifteen francs, however, a good large bouquet may be had, though, of course, it is but limited as to variety.

There have been, lately, several fresh cargoes of Cocoanuts, from America, and of Citrons, Oranges, and Pomegra-

nates, from Spain. Within the last few days, also, I have seen one or two dishes of forced Strawberries, which, however, make but a sorry exhibition.—P. F. KEIR.

P.S. *Jan. 12th.*—The medals awarded to the principal exhibitors of the Horticultural Exhibition were only distributed the day before yesterday. I have not obtained particulars, simply because no particulars have been published; but the following list contains the names of those to whom medals have been given:—

Messrs. Vilmorin, Andrieux, and Co.; Messrs. Thibant and Kételeer; M. A. Dufoy; Messrs. Pelé and Son; M. L'Homme, curator of the Botanic Garden belonging to the School of Medicine; Messrs. Verdier and Son, nurserymen; Messrs. Jarnier and Durand, nurserymen; M. Charles; M. Chautin, nurseryman; M. Margotin, nurseryman; M. Paillet, nurseryman. The preceding are all of Paris, or its environs.

The following are from a distance:—M. Fontaine, nurseryman, Châtillon; Mr. Linden, nurseryman, Brussels; M. Pescatore, amateur, Celle-Saint-Cloud; M. Langlois, market-gardener, Vaugirard; M. Eugène Souchet, head-gardener at Fontainebleau; M. Cochet, nurseryman, Suisness; M. Mieliez, nurseryman, Esquarmes-les-Lille; Messrs. Truffant and Son, nurserymen, Versailles; M. Lavalle, secretary to the Horticultural Society de la Côte d'or, Dijon; M. Luizet, nurseryman, Ecully, near Lyons; M. Millet, President of the Committee Horticole, Angers. The Minister of War was also awarded a medal for his collection of Algerian products.

Since yesterday, we have had an acceptable change of weather, which has been dirty and dismal enough for several weeks. Now it is clear, cold, and dry; but, as yet, the mercury has not fallen much below 30° Fahr.—P. F. K.

THE BREDALBANE RADISH.

IN THE COTTAGE GARDENER of December 25, page 225, "F. S., *Wills*," inquires the way of cultivating Radishes without a fibre. I grew some Radishes, last summer, which weighed 3 lbs., but, as you say, I am afraid there is no way of growing the Radish without a fibre. The said Radishes were grown on sandy loam, without any manure, and the most of them were free from an excess of fibres. I never saw the Bredalbane Radish grown before, nor heard of it until last summer; but perhaps some of our old friends, such as Mr. Beaton, have seen it. It ought to be grown in every garden of any extent. I had the seed from Dickson's and Co., 1, Waterloo Place, Edinburgh; and, to use the words in their Seed Catalogue, "The Bredalbane Radish requires to be sown in June, and to be thinned to the same distance as the garden Turnip. It grows very large, but retains its good quality till spring, if kept among sand, and proves a useful winter salad." I have kept a few, and find them to be quite tender to-day—January 3rd.—ALEXANDER.

IS MORE OR LESS LIGHT ADMITTED BY A RIDGE-AND-FURROW GLASS ROOF?

I FEEL obliged by your reply to my question, "Is less or more light admitted by having a ridge-and-furrow glass roof?" but I must say the real point in question is left open to further consideration.

You say, the fact is, the mere quantity of heat admitted is not so much the question, as the time and mode of its admittance; and that the sun's rays strike a lean-to house, facing direct south, more powerfully at twelve o'clock, and sometime afterward. I admit, the sun's rays strike a greater degree of heat at, and just after passing, the meridian, but no more light; that is always the same, if unobstructed, on a plane surface. Then you say you can, to a great extent, get a more subdued light at mid-day without shading, when the sun is brightest, and a more direct brighter light in the morning and afternoon, than were the surface of glass on a plane. "How can that be?" If it were possible to cover a lean-to roof with one sheet of glass on a plane, could there be more light admitted by any possible means? The sun's

rays would strike obliquely on the plane surface directly he emerged above the eastern horizon, diverging from E. S. E. to W. N. W. on his ascension to the meridian, the shadow getting shorter every degree, and, immediately after passing the meridian, his rays would again fall obliquely on the plane surface, diverging from S. S. W. to E. N. E., the shadow every degree getting longer. I ask, how is it possible more light can be obtained than this by a ridge-and-furrow roof? When the sun's rays strike on one side the ridge, they cannot, by any possibility, strike on the other; consequently, what seems to be a gain on the one side is, most certainly, a loss on the other. This may be proved by demonstration any day when the sun shines, and more particularly of a frosty morning.

As regards getting a more subdued light at mid-day, how can that be, except at a loss of heat? Suppose it were possible to cover a roof, as before, with a sheet of glass laid ridge-and-furrow, what would there be to subdue the light at noon, the surface being all glass? I am aware that it is supposed, and endeavoured to be maintained by many, that the ridge-and-furrow roof possesses the advantages you describe. Whether it is because it was first brought out by Sir Joseph Paxton, I cannot tell; but I have never yet been able to see it. I have given the subject a great deal of consideration. I have watched a roof so constructed very narrowly, when the sun has been shining full on it, and the only conclusion I can come to, from actual observation, is, that it is absolutely a loss of both light and heat; as every inch of wood used in the construction of the roof must necessarily decrease the amount of light; consequently, the amount of heat also.

I have been told by some persons, "whose opinion I have asked," that they can get *two* meridians with the ridge-and-furrow roof; which I think quite absurd. If you can get more than one, you may go on *ad infinitum*. But, by way of further illustration, take a sheet of paper, lay it on a plane surface, then fold it into ridge-and-furrow, and see if it will cover the same amount of surface. It certainly will not. Then, all that is added to it to make it do so, must, necessarily, diminish the amount of light and heat, it being an opaque body. Again, as to economy in the erection of such buildings, it must be more expensive to cover a given space with ridge-and-furrow roof than a plane surface, from the fact of its taking more materials, both of wood and glass. The only advantage I can see it possesses, is when a larger space of ground is required to be covered with glass than can possibly be done with one span to advantage. I know a Grapery, near Leicester, sixty-four yards long by twenty-two yards wide; there it comes in well for the purpose intended. I erected and heated a Grapery, forty-four feet long by thirteen feet wide, about 400 yards distant, for a gentleman, and both houses are this year being forced for early Grapes, which will be a test if there is any advantage either possesses over the other. I am aware I differ in opinion with many on this subject, "and am open to conviction;" but until I can see it practically demonstrated where I am wrong, I shall consider my present opinion correct.—JOHN PANNELL, *Chesterfield*.

NEW BOOKS.

THE BRITISH YEAR-BOOK FOR THE COUNTRY, FOR 1856.*

THIS little volume contains much useful information, and is, to some extent, a record of what is new that has taken place relative to the culture of the soil during the past twelve months. It contains some of the calendrical contents of an almanack; a few original papers; reviews of a few books; list of new flowers, plants, and fruits; prices, during 1855, of Garden and Farm produce at Paris and London; with lists of horticultural and agricultural periodicals—not very accurate, by-the-by; for THE COTTAGE GARDENER is not published on a Thursday, but on a Tuesday; its price is not two-pence, but three-pence; and its editors are not G. W. Johnston, but G. W. Johnson and R. Hogg, Esqrs.

* *The British Year-Book for the Country, for 1856.* Being an Annual of Agriculture, Horticulture, Floriculture, and Arboriculture. Edited by C. M'Intosh, Esq., and T. Lindley Kemp, M.D. Longman and Co., London. 4s. 6d.

We make the following extract from one of its original articles by Mr. M'Intosh, not only as being a fair specimen of that portion of the work, but because it applies to a subject discussed in our columns to-day by Mr. Pannell:—

"We have already spoken of the importance of light. In the ordinary description of hothouses, built with strong rafters, framed sashes, and massive sash-bars, it has been found, by calculation, that one-sixth of the surface in such cases is perfectly opaque; and where glass of any small size, say six inches by four, as is often the case, is employed, this obstruction of light is very much increased, to say nothing at all of the back-wall which is not unfrequently equal to three-fourths of the whole glass surface. The position, also, of a lean-to house is the worst possible for either the admission of the greatest amount of light or the equalisation of the effects of solar heat. In the case of span-roofs, and also of ridge-and-furrowed roofs, a more equal diffusion of the sun's influence will be obtained, because both present their surfaces to the direct effects of both the morning and evening sun; while at mid-day these rays will strike the angle obliquely, thus producing a more equal solar temperature; and the benefits arising from this and the longer continuation of light upon such roofs must be apparent to all. In practice, it has been found that the temperature in a ridge-and-furrow, and also in a span-roofed house, placed close by and equally well situated in every respect with a lean-to house of equal dimensions, that the temperature has been raised in both the former 15° before it became affected in the latter. With regard to the economy of fuel, an immense saving is perceptible between the two forms, because in both the ridge-and-furrow forms the solar heat is maintained for a longer period than in the other, requiring a much less amount of fuel, or artificial heat, because, as it were, the length of the nights is so much shortened, or rather that the length of the days is prolonged. The old lean-to form is, of all others, the very worst for houses in which plants are to be grown; for, let the plants be arranged as they may, only a very small portion of their surface is exposed to direct light; hence they become one-sided and deformed, and all the skill and care of the cultivator cannot obviate this defect. Plants, on the other hand, arranged on a stage in the centre of a span-roofed house, or upon platforms or tables round the sides and ends, enjoy an equal share of light on all sides. The same may also be said of the equal diffusion of air, if admitted as we have suggested. A span-roofed house of any given length will contain, in better condition, double the number of pot-plants that a lean-to house of the same length will do. This, of itself, is a consideration.

"Regarding the difference of expense in the erection of the two forms, the span-roofed house, with all its advantages, costs no more than the lean-to one; because the expense of rearing the brick wall, be the materials what they may, will be found in all cases to exceed that of the extra timber and glass employed in the other. The span-roofed house casts little or no shade on the surrounding grounds, the lofty back-wall does so to a very considerable extent, presenting at the same time anything but an agreeable object, or an element conducive to the effects so much sought for in garden scenery.

"The ridge-and-furrow roof, which is merely a modification of the span form, possesses all these advantages when the sides and ends are glass to within a few inches of the ground. Indeed, the *beau ideal* of a perfect glass structure, whether for plant culture or the production of fruit, will be found to be one whose sides, all round, are of glass, resting on a stone plinth or base, the height of which to be regulated by the size and importance wished to be attached to it. If, for example, the structure is placed on an elevated terrace, surrounded by a retaining wall, the base then need not be more than from seven to eight inches, which makes an easy step from the gravel walk to the floor, which should be elevated thus much above the exterior level for the preservation of those parts of the timber-work which rest immediately upon it. The roof being supported by *open glazed pilasters*, placed under the valleys of the roof, the spaces between which pilasters to be in framed sashes, either in one or in two pieces, according to the distance between them, and made moveable by running on wheels adjusted to a double line of round iron rails fitted to the stone plinth. These

sashes, being on different rails, will pass each other for the purposes of ventilation, which may be obtained to the extent of one-half of the whole surface of the sides and ends of the structure. Top-ventilation to be obtained through the apex of the ridges. The internal subdivision of such a structure, no matter what its size may be, into compartments of any desired extent, may be readily accomplished by portable glass partitions made to move in the same manner as the sides."

THE COTTAGE GARDENERS' DICTIONARY.*

We can only say of this that it has been most carefully revised; all good, new plants introduced previously to the latter end of last year have been noticed; some omissions supplied; and a copious Dictionary of synonyms added. This is all that we can say for ourselves; but we may venture to add the opinion of a critic certainly unbiassed in favour of the editor—"It is the best, cheapest, and most useful Dictionary an amateur or young gardener can buy." That this critic was right, is told by the fact that one very large impression has been sold in so short a time.

QUERIES AND ANSWERS.

GARDENING.

HARDY CYPRIPEDIUMS.

"In reference to Mr. Appleby's list of hardy *Cypripediums*, I find I have notes of two not included by him, viz:—*C. candidum* and *C. humile*, and shall be glad to know whether they are only synonymous with *album* and *acaule*.

"Mr. Appleby will confer the greatest favour on me, for one, if he can tell me where to procure plants. For several years I have tried in vain, being able to meet with these only, *calceolus*, *pubescens*, *acaule*, *spectabile*, and *macranthum*; and I have tried nearly all the chief nurserymen.—A. R."

[*C. candidum* and *humile* are synonyms of *C. album* and *C. acaule*.

We are afraid you cannot obtain the varieties you wish for in England. Try Lawson and Sons, Edinburgh; or, if you do not mind the expense, send to Mr. Louis Van Houtte, nurseryman, Ghent. Mr. Appleby knows that he had, very lately, a good collection of hardy *Cypripediums*.]

PROPAGATION OF VARIEGATED ALYSSUM, CINERARIA MARITIMA, AND SAXIFRAGA HYPNOIDES.

"1. Will seeds of the variegated-leaved *Alyssum*, *Cineraria maritima*, and *Saxifraga hypnoides*, sown round the edge of open borders in early spring, make a good edging for those borders in the summer?

"2. Will *Cineraria maritima* grow if pegged down?

"3. Can seeds of the variegated *Alyssum* and *Cineraria maritima* be purchased? They are not mentioned in the seedmen's bills sent to me this year, nor could I obtain any of these seeds last year.—F. W. A."

[1. Yes; the seeds of those plants would make very good edgings indeed, but not of variegated plants. Variegation in plants is only one of the forms of sporting, and sports do not reproduce themselves from seeds. See our answer to question No. 3.

2. Yes; *Cineraria maritima* will grow any way you choose to try, out-of-doors, up or down, or sideways, as an excellent rock plant, on a dry, sandy bank, on the top of an old ruin, and in the best bed for bedding-out. It is an excellent centre for a bed, on the standing up plan, to be surrounded by low, variegated plants, or it may be trained low to make edgings to high plants, and it will make a mass, or a single row by itself.

3. No; the variegated *Alyssum* never seeds at all; and the *Cineraria maritima* would only be as the common Ragwort of the fields, if it came from seeds; that is, it would be too common for people to care for it; but its hoariness, its

woolly-like appearance, is not from sporting, it is natural, and it will come from seeds as true as possible. They also ripen in abundance in the south of France, but no one takes the trouble to gather them, because there is no demand for them.

We do not recollect having ever seen *Saxifraga hypnoides* in seed. But who would trouble himself with such seedlings, when the parent is the easiest of all plants to propagate by division?]

CULTURE OF VARIEGATED ALYSSUM.

"May I beg the favour of your informing me upon the subject of the culture of the variegated *Alyssum*. I noticed it used very largely at the Crystal Palace as a white edging, and wish to know if it is an annual, or biennial? whether propagated by cuttings, or from seeds?—J. S. H."

[The culture, the propagation, and the general management of the variegated *Alyssum* are exactly the same as for the common *Verbenas*, only that it is not fit for being made from layers in the autumn. When the cuttings are made in August and September, the plants are much easier to winter than *Verbenas*, but they must have no frost. Three or four nice plants of it, in six-inch pots, and a hotbed, from the end of February, would produce as many spring cuttings as any amateur could find room to grow. They never come from seeds; and if they did, the seedlings would be green; but no bedding-plant is more easy to increase from cuttings, or easier to keep in pots and through the winter; and no plant is more charming for a small bed, or for an edging to a large one. *Mangle's variegated Scarlet Geranium* is the next best plant for all purposes.]

CONSTRUCTION OF A GREENHOUSE.

"I am about to erect a greenhouse, twenty-one feet by thirteen feet wide, and you will confer a favour upon me by replying to the following questions:—

"If the front is seven feet high, what height should the back be to obtain the most desirable pitch?

"What size and thickness of glass do you recommend?

"Do you advise the use of a flue, or hot-water?

"May I inquire if you approve of A. Kent's, Chichester, system of covering the joint of the glass with zinc and felt?—A. B."

[The whole matter has been treated on largely, and lately. Have the back wall twelve feet. If you can, have ventilators in the back wall, or small sashes, at top, made to move, for air; have the rest of the roof fixed. Use strong sash-bars, as adopted by Mr. Rivers and Mr. Lane, instead of rafters and sash-bars, and use sheet glass not less than sixteen ounces to the foot. If you prefer Hartley's Patent, though the cost be more, you will need no shading. Hot-water is cleanest and best, but flues answer very well. A small flue below the floor would suit such a house, if objectionable above. We have had no experience of Mr. Kent's system, but some friends speak highly of it.]

UNSUCCESSFUL CUCUMBER PIT.

"I shall be thankful to you for your advice respecting a Cucumber pit, which has never done well from the first. My master had a desire, last spring, for the roof to be raised, for the better convenience of going inside, but not to have the pipes removed. We had the back and end walls raised about forty inches, but glass was preferred for the front. We have boards inside the front, to form a two-inch air-way, as the soil box comes half-way up to the front lights. The box is about twenty inches square, with two flow-pipes just under the box, and two more which have been used for bottom-heat before the place was raised. The house is divided; one part being used for Beans and Cucumbers, the other for Rhubarb, Sea-kale, or Potatoes in pots; but nothing does well in either place. I have plenty of bottom-heat, but am short of top-heat. Last summer, I had to shade for every gleam of sun; the earth and house was damp, but I could not prevent the plants drooping, nor keep off the Red

Spider. I began with Cucumbers this last November, but they are doing nothing; they have, now, both mildew and insects upon them. There is always a bad scent in the house from the air chambers. I shall be glad if you can direct me to a remedy without troubling my employer, for he takes no pride in garden expenses.—T. W. B."

[See an article on Cucumbers in pots, &c., lately. You do not state the length nor yet the width of your pit. We presume it is divided longitudinally; or, in other words, that you appropriate one end to Cucumbers, and the other to different things. We suspect you have not got enough of air. Can you open the top sashes? or have you ventilators in the back wall close to the top? Your high box in front deprives you of half the light from the front sashes. If, as we suspect, your house is only six or seven feet wide, you have no necessity for a bed at back and front for Cucumbers. The bad air from your chambers can only proceed from a flue not quite the thing. Abundance of bottom-heat, and not enough of top, is a mystery to us, as you may have what openings from the chamber you please. Now, considering your difficulties—alluding only to Cucumbers—and supposing that you can give air at top as well as bottom, the following is what we would do. Supposing that your pipe and flue together give plenty of bottom-heat, we would provide against all bad smells getting from the chamber by closing up all the openings, and growing Cucumbers at the back only, though that bed would be too far from the light to rear them. We would, therefore, reduce the box fully one-half, as to its height; and at a place at one end, having the pipes shut in below it, we would raise the Cucumbers until they were a foot or so in height, and then turn them into the bed at the back. This front platform could be applied to numberless purposes. By increasing the number of openings, bottom and top, of this front chamber, you would thus have three pipes for the atmosphere of the house, and one pipe and flue for bottom-heat, and disturb nothing.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

GREAT NORTHERN. Jan. 23rd and 24th, at Doncaster. Sec. H. Moore, Esq., Doncaster.

KENDAL. At Kendal, February 1st and 2nd. Sec. James Geldard.

N.B.—Secretaries will oblige us by sending early copies of their lists.

DUBLIN SOCIETY'S PROPOSED BASIS FOR JUDGING POULTRY.

MUCH and important occupation has prevented me from replying sooner to Mr. Williams, which I still do "incognito," only because the subject would not be assisted in any way if I signed my name, as well known in the poultry world as either of those mentioned. Under these circumstances, I do not ask for any answer to this. I will, however, state that I do not give "garbled" extracts—no words or letters are changed. They were partial, but my remarks treated only of such parts as were quoted. A man is seldom a competent judge of his own performances, and if my remarks were "ridiculous," it is a proof of it—I did not intend them to be so, less did I wish to stifle inquiry, and much less either to cause anger or give pain. During much and varied intercourse with men, and thirty years' intimate acquaintance with poultry, I have learned that attention is more frequently called to a subject, and the truth, consequently, elicited, if it is treated in a light manner, than if it is left to its own merits and its naked propositions. Hence my adoption of a style quite misunderstood either by myself or Mr. Williams. That gentleman states, his "proposed basis" "was not intended for such as myself." I assure him it was; and I will endeavour, in any remarks I may offer, to confine myself to a style which shall be free from any imputation of ridicule.

I will begin by saying, rules are impossible for judging Poultry Shows, unless the whole system is changed, and several days are given up to the operation. I was at Bir-

mingham, and, in common with many others, pitied the Judges who had the labour of making the awards. Let us, for instance, take the *Dorking* classes with their hundreds of entries. If the proposed basis were adopted, and birds were to be examined so closely as to scan the shaft of the feathers on the back, and in the hackle, to look at the eye, to mark the absence of certain points, and the presence of almost imaginary defects, how long would the class occupy?

Again, if characteristics, which hitherto have appeared unimportant, are to be defined, and declared essential to constitute a Dorking fowl, the absence of them must cause *disqualification*. At present, size, symmetry, five claws, white legs, and similarity of combs, are indispensable. Lacking either of them, a pen cannot compete, however great its merits in other respects. To adopt a standard which goes into the minutiae of a shade or a feather, would be to disqualify ninety-eight pens out of a hundred, as they are exhibited by even our best breeders. Those only who are accustomed to almost constant judging are aware how few *perfect pens* are sent, *even now*, by those in greatest repute among the successful. I question if any could be procured to satisfy all the requirements of the "proposed basis," if sharp and proper Judges had to examine them.

I am not unknown as a Judge, and exercised that office many years before shows existed on their present scale, and, speaking from experience, I say it would be impossible to judge a large show by rules such as those proposed. I contend, farther, and appeal to every practised Judge either to support or deny what I advance, that the adoption of printed rules would double their labour without assisting them in their decisions. If the proposed basis were adopted, it must be referred to constantly while at work, because it would be in the hands of all who were interested, and the Judges would be amenable, not to their own opinions, but to the printed rules.

But it is not enough to give the necessary characteristics; there must be a scale of importance. Let us suppose, that after submitting a class to the ordeal of the rules, not one pen in it came up to its requirements. It will then be necessary to ascertain which is the greatest, which the most trifling, defect or shortcoming. As soon as Judges have accepted rules they are *bound* by them, and their awards must conform to them; they have only to carry out instructions, and long experience will only enable them to do so rather more speedily than a stranger to the work.

The knowledge that their birds were to be submitted to such an ordeal would discourage all breeders. With rules, or basis, in hand, they would seek, in vain, among their best birds for a pen that might hope for success, and they would abstain from entering birds, anticipating nothing but defeat and disappointment.

There would be another cause producing the same effect. Judges would be compelled to disqualify whole classes, lacking the discretionary power now always accorded to them, and which enables them to give prizes to the best birds, even of an indifferent class. This is not imaginary. If certain qualities are declared essential to constitute a pure breed, the absence of them must prove the reverse, and birds in that predicament cannot take prizes.

The difficulties of judging are already great enough. The ablest and best among the Judges are withdrawing from a laborious, thankless, and unprofitable task; and if the exercise of that knowledge, which is their only pleasure in the pursuit, is to be trammelled in any way, exhibitors will look in vain for men of experience and respectability to exercise the office.—D.

TREATMENT OF A DISEASED FOWL.

I HAVE a very valuable Dorking hen, only twenty months old, labouring under a complaint which quite baffles my skill, and I shall be much obliged to any of your readers if they can, from my description, conjecture what her complaint is, and suggest some means of treating it. The chief symptom is a disposition to lie down on all occasions, and, apparently, a pain or difficulty in walking. Some days she does not stir out of her sleeping-house, and when she does she walks with a slow, laboured movement, frequently stopping and lying down. She does not appear cramped; her

plumage is in good order. There is no visible malformation, or any thing that I can detect, to account for her sluggishness. She has been in this state about a week. She eats, though with little relish, and her comb is not as fresh-looking as it should be. I am completely at a loss, both as to the nature of her complaint and probable remedy, and can only, through your columns, ask some more experienced poultry-keeper to give me the benefit of his better knowledge.—H. S. H.

[The symptoms described point out obscurely some disease of an important internal organ, possibly of the liver, or some portion of the digestive system. The symptoms are not sufficiently marked to render a certain diagnosis possible. A grain of calomel may be given as an alterative; but the case does not look promising.—W. B. T.]

ANNUAL GRAND SHOW OF THE PHILO- PERISTERON SOCIETY.

THE annual show of this society took place on Tuesday, the 8th of January, in the large room at Freemasons' Hall. The collection of Pigeons was numerous, varied, and of the very highest character. Where all were excellent it is difficult to particularize; but it is impossible to pass over, without notice, the splendid *Pouters* of Mr. Butt, nor the collection of Mr. Wicking, which included a number of short-faced *Almond Baldheads*, the result of many years most careful breeding. Mr. Weir exhibited a number of exceedingly beautiful *White Fantails* and *Barbes*; Mr. Esquilant some very superior *Almonds* and short-faced *Mottles*. Nor must the collection of *Carriers*, from Mr. Maddeford, and other members, be overlooked; or a pen of *Yellow Tumblers*, belonging to Mr. Lucy, which may be regarded as unique. Among the large collection were some German birds, remarkable from the wings being barred with white bars on a dark ground. The company was numerous, and included some of our first naturalists. Mr. Yarrell, whose name is a "household word" with all Zoologists, and Mr. Darwin, whose "Naturalist's Voyage round the World" is known all over the world, were present, and, with our old correspondent, Mr. Tegetmeier, were examining bird after bird, with a view to ascertain some of those differences on which the distinction between species or varieties depend.

Successful as was the show of last season, it was surpassed by that of the present; and that it may, if possible, continue to increase in interest, must be the wish of all who have at any time experienced the courteous liberality of the Philo-Peristerons.

THE PIGEON AWARDS AT BIRMINGHAM.

THE judging of the Pigeons at our late shows has so entirely disgusted me, that if I keep in my present mind, I do not think (although I have been a very large and successful exhibitor) I shall ever exhibit again. Commencing at our Birmingham Show—a pair of Pigeons I sent took the first prize, as, I believe, they invariably have done at all the previous shows they had been at. I sent the same pair of birds to Colchester, and they were not even commended, although the pair that took the prize were inferior birds. I next sent them to Preston, with like result. Now, this pair of Pigeons are acknowledged to be, by all disinterested parties and good judges, equal if not the very best that have ever been exhibited in the United Kingdom. The only reason I can give is, that where they have had the prize an acknowledged Pigeon Judge has acted. On the contrary, at Colchester and Preston, the Pigeon judging has been done by Poultry Judges; and I am sure, that without the Judges have kept all varieties, and studied them well, for at least twelve months, they cannot know any thing about them. In regard to the Judges at our Birmingham Shows, I consider, that if Mr. Cottle had acted alone he would have given satisfaction, although I do not know him, but merely from his judging at the Columbian Society's Show. I could give you many more cases, but think the above one sufficient. If I have expressed myself too strongly,

believe me, it is not more than I feel, and I hope that before next season you will lend your columns to put down any such cases of *Ignorance* or *Partiality*. The only Poultry Judge that knows any thing about Pigeons, I think, is Mr. Hewitt, of Sparkbrook; but I think, where the funds will permit it, a separate and acknowledged Judge of Pigeons ought to be engaged.—A VICTIM TO IGNORANCE OR PARTIALITY.

COCK FOR CUCKOO DORKINGS—SINGLE- COMBED SILVER HAMBURGH HEN.

PLEASE to tell me if the Cuckoo, or light-grey Dorking hens are worth breeding from, and if a Black-breasted Silver-hackle cock would be a proper mate for them. Also, if you should discard a Silver-spangled Hamburg hen, perfect in every respect but having a single comb. Do you think, with a good cock her eggs would produce double-combed and good chickens?—WILLIAM JOSHUA.

[The Cuckoo Dorkings are good, and very heavy fowls. They are also good fatters. The cock should be of the same colour as the hens, and such a bird as you name is not a proper mate.

Discard your single-combed Silver Hamburg hen by all means. However good the cock to which she might be put, she would be sure to throw some of her chickens like herself.]

BLACK-CRESTED BLACK POLANDS—GOLDEN- PENCILLED POLANDS—TAIL OF SILVER POLAND COCKEREL.

BEING an ardent admirer of the Polish fowl, I was much interested by Mr. Tegetmeier's communication, inserted some time ago in the *POULTRY CHRONICLE*, concerning the long-lost and much-coveted Black-crested White Polish (which I am not yet entirely without hope of breeding this season myself). I, in common with many other Polish fanciers, shall, indeed, be pleased if this beautiful variety be ever recovered. However, I have another novelty to report. A few months ago, I obtained a pair of Polish chickens, which I reckon very handsome. They exactly resemble the Gold-pencilled Hamburgs, except that in the place of the comb they possess a handsome yellow top-knot. The pair of birds in my possession are not quite perfect specimens, but still they are very handsome birds, and I hope to breed some which will be up to the mark. They are well bearded. I enclose you a couple of feathers from the pullet's back; and I may just say, in conclusion, that I am trying to procure some Silver-pencilled ones.

Being in possession of two Silver Polish Cockerels, one with a white tail, in which each feather is tipped with black, and the other with the regular splashed tail, I should be obliged if you, or some of your numerous correspondents, would favour me by saying which of these two fowls would be preferable, all other points being equal.—GEO. W. BOOTHBY, *Louth, Lincolnshire*.

[The feather enclosed is that of a Pencilled Hambro', and has no affinity either to the Spangled Hambro' or the Polish. Judging from such a feather, coupled with a top-knot, it points to a cross, and however beautiful the result may be, it is not to be depended upon for the future.

If all the points are equal in the *Silver Poland Cockerels*, we should prefer the white tail with the black spot at the end; but it is only fair to state, such tails are generally accompanied by pale and deficient markings on the body, especially on the wings.]

COTTAGERS' PRIZES AT THE BIRMINGHAM POULTRY SHOW.

THE communication which appeared in No. 380, headed "Suggestions to the Committee of the Birmingham Poultry Show," contains certain hints which are well worth the con-

sideration of the committee to whom they are addressed; but I must confess that the remarks relative to cottagers' poultry were by no means in unison with my knowledge and experience. That such cases have occurred, few will be so rash as to dispute; but I am more inclined to look upon them as exceptions than as a whole. I believe, as much honour is found amongst this class of exhibitors as amongst gentlemen amateurs, and that the assertion that "most of such prizes are eventually secured by the fowls of well-known exhibitors, merely lent for the especial purpose," indicts a wrong upon many an honest cottager, who lacks neither discernment in making choice of his stock; nor ability, when made, to improve the chance he has with it; nor spirit, had he means, to put many of his more wealthy competitors into the back ground. As these suggestions are particularly addressed to the Birmingham committee, most readers would particularly apply the remarks to the cottagers taking prizes at that exhibition; and as I personally know two of the successful competitors at the late Birmingham Show, who showed between them four pens of fowls, bringing away the first prize, one third, and a commendation, I believe it but a simple act of justice to state that, as a townsman, knowing nearly all of the fanciers in the neighbourhood, and having a frequent opportunity of seeing the stock owned by each of the said parties, I have no doubt whatever, in my own mind, that the birds exhibited by them were their *bona fide* property, and the strictest investigation would only place such men in higher esteem as genuine lovers of the fancy, and who, with their limited means, have achieved noble triumphs, which it would be ignoble to endeavour to displace.

And having said thus much, I would also add, by way of a set off, that I know parties, exhibiting as gentlemen amateurs, who have not unfrequently made application to these very cottagers for the loan of birds, to exhibit at such shows as those where the high price of entry precluded a person with cottager's means from contesting.—MATTHEW RIDGWAY, *Deesbury*.

COPAIBA AS A REMEDY FOR ROUP.

SOME short time since, I was conversing with one of the most successful breeders of Carriers, respecting the diseases of Pigeons, and was informed by him that he had found a few drops of Copaiba Balsam more successful than any other remedy in removing the catarrh, or roup, to which those birds are subject.

I at once saw that in my former experiments on this disease in fowls, I had made an important omission in neglecting to try the effects of this remedy. Copaiba has a peculiar and specific action upon the mucous membranes, and would be much more largely employed in diseases of the lungs, if it were not for its very disagreeable flavour and odour; and other associations connected with it. On referring to my poultry library, I found that Dr. Horner had suggested its employment in roup. I therefore wrote to him, requesting him to inform me if he had had any experience in its use, when he kindly furnished me with the following particulars:

"For the last week I have had two rousy Polish under treatment with Copaiba. I can only say that they were getting worse and worse, until I began with Copaiba, and they are now getting decidedly better. I did not remove them, or change their diet, that I might be the better judge; an important thing to be observed, I think, in experimenting. I gave, by means of a cut quill, little short of a drachm every night; half the quantity twice a-day might have been better, or, indeed, the whole quantity twice a-day. I used the solution of Copaiba as got from the chemist."

Although I have had no experience in the use of this remedy, I am inclined to think very highly of it in this disease, and not the less so, I trust, because the credit of the prior suggestion belongs entirely to Dr. Horner. My object in writing this article is to bring it under the notice of poultry fanciers generally, and to request them to give it a trial in cases of roup they may have; and I would suggest, as the most convenient mode of administering it, the employment of those capsules in which it is sold by druggists, one of which might be put down the fowl's throat night and morning. I shall be glad to hear the results of any experiments.—W. B. TEGETMEIER, *Wood Green, Tottenham*.

PRESTON AND NORTH-EAST LANCASHIRE POULTRY SHOW.

ALTHOUGH the county palatine had numerous small shows, where the local stars shone in undisputed splendour, it was felt that an undertaking on a larger scale was necessary, in order that all might meet on a common field, and try the merits of the birds. A few influential inhabitants of Preston have afforded them the opportunity, by offering a liberal prize-list, and the result has been an unusually good show of nearly nine hundred entries.

It will, perhaps, afford amusement to those who have leisure to solve the problem, why classes that were weak at Birmingham should be strong here, with nothing to favour them; while others, supposed to be particularly the birds of the county, should be badly represented. Was it a misplaced feeling of security? or did the champions think of the approaching lists at Liverpool?

The show was held in the Corn Exchange, a building well adapted for the purpose in every respect; it is spacious and lofty, and, in accordance with modern notions and liberality, entirely covered with glass. A man "in his time plays many parts," and so does a ball room; for, on this occasion, one of no ordinary dimensions served as first and second-class refreshment rooms, as committee room and sale office, and as show room for an ingenious contrivance, affording a very small run, a good roosting-house, and laying or sitting boxes enclosed with wire. Whatever effect the war may have in other respects, it has afforded an opportunity for those who have taste in drapery and heraldic ornaments to display it. Thus the extremity of the show yard was entirely marked with pink festoons, relieved by the Prince of Wales' plumes in the centre, supported by shields and military trophies, and the building around was decorated with the banners of England, France, Turkey, and Sardinia. The refreshment rooms were liberally adorned with flags of all nations. The popping of corks and the distant crowing of cocks served for the music.

The committee were careful that the judges should not be interfered with, and that no one should know the "secrets of the prison house" till the appointed time, for they were literally locked into the building by themselves. To name every prize-taker becomes so tedious to the reader, that we shall content ourselves with a notice of the classes and the winners of the cups. Here let us mention, there were twenty-three of them; and we must express our regret that one was not given to *Bantams*. Many of the varieties of these beautiful birds are as valuable as any other breeds.

Dorkings began and ended the list, and in both, the newly-discovered planet in this poultry hemisphere, Mr. Wright, of Warrington, was successful. He took both the cups. These classes were unsurpassable. Mr. Cliffe, of Dorking, had the cup for the *white* birds. A new competitor, Mr. Howard, of Tarleton, in the adults, and an old one, Captain Hornby, in the chickens, carried off the coveted *Spanish* plate.* It would be unfair not to mention that pen 69, in the adult class, would have been successful but for the presence of white spangles on the plumage of one of the hens.

We have now to deal with the best class, according to the judges' report, that has been seen for two years. We allude to the *Cochin-Chinas*. They describe it as "being worthy of the old days of Cochins." Of late, the difficulty has been to find birds worthy of the prizes; here, the difficulty was to distinguish among the excellent. Mr. Dawson, of Yorkshire, took the cup with a pen of beautiful Silver Cinnamons, closely run by the Rev. S. Donne; and Mr. Adkins, of Birmingham, was equally successful with an unusually good pen of Grouse birds. There was an extra and more valuable cup offered for the best pen of Cochins in the show, and it was awarded to Mr. Adkins. This gentlemen, then, won two cups with the same birds;—no mean exploit. The *Cochin* cups had a *penchant* for Birmingham, that mother of poultry shows, as that for white birds was awarded to Mr. Chase. Messrs. Bush and Catterall took the glittering honours for the two class of *Brahma Pootras*. The *Golden Hamburgs*, Spangled and Pencilled, were

* The gallant captain, after two years repose, sent a noble pen of chickens, and inaugurated his reappearance by taking two silver cups. He may be proud of them.

worthy of Lancashire; the first added to the sideboards of Messrs. Henderson and Turner, the second to Messrs. Chune and McCann.

And now comes the opprobrium of the show. Tell it not in Lancashire. The Silver-spangled and Pencilled were declared "not" to be good classes; yet the names of the successful were Chune, Dixon, and Greenall. The fourth cup went to a lady, Mrs. Sharp.

It was a pity the prizes were not more numerous for the *Poland* class. The class, only one for all varieties, and lots of good birds, Mr. Conyers earned another cup with a pen of the best White-crested *Polands* we ever saw.

The *Game* fowls afforded numerous perfect specimens. Messrs. Dawson and Atkinson took what a man described as the "Silver drinking horn."

A pen of unusually good *Black Hamburgs* gave the same reward to Mr. Town. The *Bantams* were hardly so good as we have seen of late.

Neither *Turkeys* nor *Geese* were good enough to call for especial notice in these days. Mr. Kershaw took the prize in each class. The pen of *Geese* weighed 59 lbs.

And now a word of *Aylesbury Ducks*. They were a numerous class of large-framed birds, but their weights were very bad; and after the records of late shows, where 7lbs. each was an average, it seemed odd that a pen of three weighing only 17 lbs. should win easily; yet such was the case. Neither soil nor climate can have anything to do with it, as it was only a question of feeding, seeing they had the growth.

The *Rouen Ducks* were so good it was difficult to fix on the best.

Then came the class of classes among the aquatics, "the other varieties." Here were *White and Brown Call Ducks*, *Buenos Ayres*, and *farm Ducks*, all perfect. Speaking from authority, we say that the distinction between the prize and commendation was only a shade. This remark will apply to the whole of this show. If comparison is made of the number of prizes, compared with the number of pens, and if account be taken of the constant commendations of the judges, it will be seen that those especially noticed have achieved no mean exploit; and till the finances of the committees will enable them to allow prizes to all who deserve them, exhibitors must be content with the distinction, and recollect, that if they persevere and improve a little more, they will, at some future time, occupy the position they envy (without ill-feeling) now.

The show must have been successful. It possessed all the attributes—good subscription list, and efficient and working committee and chairman.

We are bound to pay them this public tribute of our thanks; and it is our belief, that the spirited originators will have the satisfaction of founding a lasting and great exhibition, which, in common with others of the same nature, is calculated to benefit the town and its inhabitants in every respect.

FAREHAM POULTRY SHOW.

It is refreshing, in our peregrinations, to leave the crowded and busy manufacturing town, with its tall chimnies, its mills, its busy population and crowded streets, and to be transported into a quiet, rural district, where everything breathes of tranquillity and cleanliness.

These thoughts struck us when, following our avocation, we left Preston and went to Fareham, where a show was held on the 14th and 15th. Viewing the increase of the love for poultry, we feel confident no place will be without a Show where a proper building exists for it; and many a lecture room will, for a time, cease its scientific vocation, to convey a lesson on Natural History, or to show to those whom it may concern, the breeds best fitted to fill the pocket by providing food for our growing population. In a remarkably pretty, wide, and clean street of Fareham, stands the Lecture Room, and this was devoted to the exhibition. It had the advantage of being light and airy, and of having gas already laid on.

At every succeeding show we have to notice good birds; and even the most important, a few years since would have

failed to produce as many capital specimens as were seen here.

The number of these meetings we have to report compel us to limit our remarks, and to confine them to those pens and classes whose merits imperatively demand separate notice. We must, then, speak highly of the adult *Spanish* prize birds, and of the *Dorkings* generally. Messrs. Cother and Vaux in the first, and Mr. James in the second. The latter gentleman's pen has nothing to fear from any competition.

The *White Dorkings* were the best we have seen this season.

Lord de Blaquiére's *Silver Cinnamon Cochins* were perfect.

Here we must warn many, that their non-appearance in the list of the distinguished is entirely owing to improper matching. Cinnamon cocks cannot show with Buff hens.

The *Game* fowls were, many of them, perfect, especially a pen of duck-wings, belonging to Mrs. James.

Mrs. Coleridge, of Eton, showed excellent *Gold-spangled Hamburgs*, and deservedly took the first prize. The same lady was successful in the *Chicken* classes. The Show was favourable for the ladies, for Mrs. Pettat took both prizes for *Silver* chickens.

While we pronounce the *Golden-pencilled* an excellent class, we must warn exhibitors that faulty combs, especially if they droop on one side, are fatal to success.

Mr. Mew showed excellent *Silver pencilled*, and was deservedly successful. The *Silver* were the gems of the *Poland* classes, and their winners may boast of their victory. We were glad to see Mr. P. Jones successful.

The *Bantams* produced a pen of *Golden*, belonging to Mr. Antill; certainly, one of the best we have seen this season. All Mr. Mew's were good; and Mrs. Pettat showed good *Silvers*.

Messrs. Edwards and Rodbard took deserved prizes for *Ducks*. Two pieces of plate were awarded—first to Mr. Rodbard; second to Mrs. Coleridge.

We have never, in our experience, seen a more laborious Committee, or any more anxious to deserve the support of all who are interested in the poultry pursuit. It is saying much, when we wish men their deserts; but we do so, honestly, to our friends of the Fareham Committee.

The Judge was Mr. Baily, London.

SPANISH.—7. First, Mr Philip P. Cother, Salisbury. 2. Second, Mr John Vaux, Ryde. Highly Commended.—3. Mr W. Saunders, Cowes. 8. Mrs Foster, Stubington House. (A good class.) *Birds of 1855.*—15. First, Mr G. W. Locke, Newport, Isle of Wight. 19. Second, Mr Parkins Jones, Fulham.

DORKING (Coloured).—29. First, Mr W. Saunders, Cowes. 26. Second, Mrs H. Fookes, Whitechurch, Blandford. Highly Commended.—25. Mrs H. Fookes, Blandford. 27. Mr John Vaux, Ryde. 30. Mr W. Saunders, Cowes. 32. Mr C. Dorin, Funtington, Chichester. *Birds of 1855.*—55. First, Mr R. James, Fareham. 39. Second, Mr J. R. Rodbard, Langford, Bristol. Highly Commended.—36. Mr C. Fielder, Sparsholt, Winchester. 41. Mr W. Saunders, Cowes. 46. Mr W. Cave, Winchfield. 54. Mr C. Oliver, Southampton. Commended.—50. Mr W. Cave, Winchfield. 51. Mr W. Cave, Winchfield. (These two classes excellent.)

DORKING (White).—60. First, Capt. Harris, Winchester. 62. Second, Mr N. Antill, Portsca. *Birds of 1855.*—67. First, Capt. Harris, Winchester. 68. Second, Mr N. Antill, Portsca. Highly Commended.—66. Mrs H. Fookes, Whitechurch, Blandford. (A good class.)

COCHIN-CHINA (Coloured).—75. First, Lord De Blaquiére, Woodlands, Havant. (Silver Cinnamon.) 71. Second, Mrs H. Fookes, Blandford. Highly Commended.—76. Lord de Blaquiére. (A good class.) *Birds of 1855.*—84. First, Mr R. Griggs, Dibden, Southampton. 83. Second, Mrs H. Fookes, Whitechurch, Blandford. Highly Commended.—86. Lord De Blaquiére, Woodlands, Havant. 89. Mr J. W. Kellaway, Ryde.

COCHIN-CHINA (White and Black).—93. Second, Mr C. Coles, Fareham. (First prize withheld.) *Birds of 1855.*—94. First, Mr J. R. Rodbard, Langford, Bristol. 97. Second, Mr West, East Corsham Lodge.

BRAHMA POOTRA.—98. First, Mr R. H. Mullens, Farlington House. *Birds of 1855.*—103 and 102. First and Second, Mr W. Saunders, Cowes.

GAME FOWL (Black, Black-breasted Red and other Reds).—110. First, Mr T. Twose, Bridgewater. 108. Second, Mr R. Rodbard, Langford, Bristol. *Birds of 1855.*—117. First, Mr F. A. Lavender, Bid-denham, Bedford. 120. Second, Mr C. James, Fareham.

GAME FOWL (Any other colour).—124. First, Mr C. James, Fareham. 121. Second, Mr J. R. Rodbard, Langford, Bristol. *Birds of 1855.*—129. First, Mr C. James, Fareham. 125. Second, Mr J. R. Rodbard, Langford, Bristol.

GOLDEN-SPANGLED HAMBURGH.—130. First, Mrs C. E. Coleridge, Eton College, Windsor. 133. Second, Mr R. James, Fareham. *Birds*

of 1855.—135. First, Mrs C. E. Coleridge, Eton College. 136. Second, Mr J. Crompton, Porchester.

SILVER-SPANGLED HAMBURGH.—143. First, Mr P. P. Cother, Salisbury. 141. Second, Mrs C. E. Coleridge, Eton College. *Birds of 1855.*—147 and 148. First and Second, Mrs A. C. Pettat, Ashe Rectory, Andover Road.

GOLD-PENCILLED HAMBURGH.—158. First, Mr J. J. Fox, Devizes. 156. Second, Mr J. M. Sutton, Swathling Grange, Southampton. Highly Commended.—157. Mr T. P. Mew, Cowes. *Birds of 1855.*—162. First, Mr T. P. Mew, Cowes. 164. Second, Mr R. James, Fareham. Highly Commended.—163. Mr W. Locke, Ryde.

SILVER-PENCILLED HAMBURGH.—165. First, Mr T. P. Mew, Cowes. 167. Second, Mr R. James Fareham. *Birds of 1855.*—169. First, Mr T. Mew, Cowes. 171. Second, Mr R. James, Fareham.

POLISH FOWL (Black, with White Crests).—174 and 175. First and Second, Mr T. P. Edwards, Lyndhurst.

POLISH FOWL (Of any other variety).—183. First, Mr P. Jones, Fulham. (Silver.) 178. Second, Mrs C. E. Coleridge, Eton College. (White.) Highly Commended.—177. Mrs C. E. Coleridge. (Silver.) 179. Mr J. J. Fox, Devizes. (Gold-spangled.) (A good class.)

BANTAMS (Gold-laced).—187. First, Mr N. Antill, Portsea. 186. Second, Mr T. P. Mew, Cowes. Commended.—189. Mr J. J. Fox, Devizes.

BANTAMS (Silver-laced).—193. First, Miss A. C. Pettat, Ashe Rectory, Andover Road. 195. Second, Mr N. Antill, Portsea.

BANTAMS (Any other variety).—200. First, Mr W. Saunders, Cowes. (Game.) 201. Second, Mr T. P. Mew, Cowes. (Black.) Highly Commended.—199. Mr W. Saunders, Cowes. (Game.) 202. Mr T. P. Mew, Cowes. (White.) 203. Mr G. W. Locke, Newport. (Black.) 207. Mr F. A. Lavender, Biddenham, Bedford. (Game.)

FOWLS (Of any other distinct breed).—213. Prize, Mr G. Grapes, Newport. (Malay.) 217. Prize, Mr W. Cave, Winchfield. (Ptarmigan.) 223. Prize, Mr C. Colcs, Farcham. (Andalusian.)

GESE (Of any breed).—227. First, Mr T. P. Edwards, Lyndhurst. (White.) 228. Second, Mr R. Binsted, Pecl Farm, Stubington. (Grey.)

DUCKS (Aylesbury).—236. First, Mr T. P. Edwards, Lyndhurst. 238. Second, Mr J. James, Fareham. Highly Commended.—232. Mr J. W. Kellaway, Ryde. 233. Mr N. Antill, Portsea. 235. Mr T. P. Edwards, Lyndhurst. Commended.—229. Mr J. R. Rodbard, Langford, Bristol.

DUCKS (Rouen).—241. First, Mr J. R. Rodbard, Langford, Bristol. 242. Second, Mrs H. Fookes, Whitechurch, Blandford.

TURKEYS.—248. First, Mr J. R. Rodbard, Langford, Bristol. (Cambridge.) 249. Second, Mr W. Saunders, Cowes. (Grey.) Commended.—252. Mr J. James. (Improved Cambridge.)

LIVERPOOL POULTRY SHOW.

On the 16th, 17th, and 18th of January.

We must reserve our notes on this Show until next week. The Judges were E. Hewitt, Esq., of Birmingham, and Mr. J. Baily, of London.

SPANISH.—4 and 3. Cup and First and Second Prizes, Mr H. D. Davies, Spring Grove House, Hounslow. Highly Commended.—11. Mr William Plummer, Brislington, near Bristol. Commended.—7. Mr Joseph Hindson, Barton House, Everton, Liverpool. 9. Mr Joseph Tate, Syke Hill, Preston. (A good class.) *Chickens of 1855.*—23. First, Mr W. W. Brundrit, Runcorn. 19. Second, Mr H. D. Davies, Spring Grove House, Hounslow. Highly Commended.—16. Captain W. W. Hornby, R.N., Knowsley Cottage, near Prescott. Commended.—20. Mr H. D. Davies, Spring Grove House, Hounslow. 24. Mr William Plummer, Brislington, near Bristol. (An excellent class.)

DORRING (Coloured).—39. Cup and First, Rev. Stephen Donne, Oswestry. 44. Second, Mr William Wright, Westbank, near Warrington. Highly Commended.—33. Mr J. Dale Hewson, Cotton Hill, Stafford. 40. Rev. Stephen Donne, Oswestry. 45. Mr Thomas Ullock, Windermere. 47. Earl of Sefton, Croxteth Hall, near Liverpool. Commended.—54. Mr Joseph Hindson, Barton House, Breck Road, Everton. (A very good class.) *Chickens of 1855.*—55. First and Second, Mr William Wright, West Bank, near Warrington. Highly Commended.—58. Mr Henry Smith, Cropwell Butler, Bingham, Notts. 63. Capt. W. W. Hornby, Knowsley Cottage, Prescott. Commended.—73. Mr John Copple, Eccleston, near Prescott.

DORRING (White).—79. First, Mr John Robinson, Vale House, Garstang.

COCHIN-CHINA (Cinnamon and Buff).—83. Cup and First. Rev. Stephen Donne, Oswestry. 91. Second, Mr H. McNicol, Cathcart Street, Birkenhead. Highly Commended.—92. Mr John Henderson, Feathers Hotel, Liverpool. Commended.—87. Mr F. B. Walker, Douglas, Isle of Man. *Chickens of 1855.*—102. First, Mr Thomas Stretch, Marsh Lane, Bootle. 94. Second, Mrs Herbert, Powick, near Worcester.

COCHIN-CHINA (Brown and Partridge Feathered).—109. First, Miss Viola W. Musgrove, Seaford, Liverpool. (Second Prize withheld.) *Chickens of 1855.*—115 and 114. First and Second, Mr P. Cartwright, Oswestry.

COCHIN-CHINA (Of any other colours).—121. First, Mr Robert Chase, Moseley Road, Birmingham. (White.) 124. Second, Mr Richard Teebay, 82, Church-street, Preston. (Black.) *Chickens of 1855.*—129. First,

Mr Robert Chase, Moseley Road, Birmingham. (White.) 126. Second, Mrs Herbert, Powick, near Worcester. (White.) Highly Commended.—27. Mrs Robert Horsfall, Mere Bank, Everton. (White.)

BRAHMA POOTRAS.—133. First, Mr H. D. Davies, Spring Grove House, Hounslow. 136. Second, Mr John S. Maemichael, Warrington. *Chickens of 1855.*—139. First, Mr H. D. Davies, Spring Grove House, Hounslow. 143. Second, Mr Richard Teebay, 82, Church-street, Preston.

GAME (White and Piles).—149. First, Mr James Monsey, Thorn Lane, Norwich. 146. Second, Mr Joseph Tate, Syke Hill, Preston. *Chickens of 1855.*—151. First, Mr John Mallabey Baker, Atherstone. 153. Second, Mr Joseph S. Stock, Bourne Brook Hall, near Birmingham.

GAME (Black-breasted and other Reds).—169. Cup and First, Mr Joseph Hindson, Barton House, Breck Road, Everton. 161. Second, Mr George C. Adkins, Edgbaston, Birmingham. Highly Commended.—157. Mr William Dawson, Selly Oak, near Birmingham. 159. Mr Joseph Cox, Renshaw-street, Liverpool. 171. Mr Theod William Pearce, Bromham Road, Bedford. (An excellent class.) *Chickens of 1855.*—185. First, the Earl of Sefton, Croxteth Hall, near Liverpool. 177. Second, Mr William Cox, Brailsford Hall, Derby. Highly Commended.—174. Mr Nathan N. Dyer, Bredon, near Tewkesbury. 178. Mr Joseph Cox, Renshaw-street, Liverpool. 191. Mr Thomas Wm. Jones, Wellington, Salop. Commended.—181. The Earl of Sefton, Croxteth Hall, near Liverpool.

GAME (Blacks, and Brassy-winged, Greys and Blues).—196. First, Mr Henry Worrall, Knotty-Ash House, Liverpool. 194. Second, Mr William W. Brundrit, Runcorn. *Chickens of 1855.*—204. First, Mr William Lomax, Stonelough, Manchester. 202. Second, Theod W. Pearce, Bromham Road, Bedford.

GOLDEN-PENCILLED HAMBURGH.—209. First, Mr James Dixon, Bradford. 207. Second, Mr Josiah B. Chune, Coalbrookdale. Highly Commended.—213. Rev. T. G. M. Luckcock, Upper Berwick. *Chickens of 1855.*—218. First, Mr William C. Worrall, Rice House, Knotty-Ash, near Liverpool. 224. Second, Mr James F. Greenall, Grappenhall, Warrington. Highly Commended.—219. Mr F. B. Walker, Douglas, Isle of Man. 223. Mr James Dixon, Bradford.

SILVER-PENCILLED HAMBURGH.—229. First, Mr Edward Archer, Malvern. 226. Second, Mr Jas. Dixon, Bradford. *Chickens of 1855.*—243. Cup and First, Mr Edward Archer, Malvern. 238. Second, Mr William Cox, Brailsford Hall, Derby. Highly Commended.—240. Mr James Dixon, Bradford. (An unusually good class.)

GOLDEN-SPANGLED HAMBURGH.—253. Cup and First, Mr W. C. Worrall, Rice House, Knotty Ash, Liverpool. 247. Second, Mr Joseph Conyers, jun., Boar Lane, Leeds. *Chickens of 1855.*—259. First, Mr William C. Worrall, Rice House, Knotty Ash, near Liverpool. 257. Second, Mr James Dixon, Bradford. Highly Commended.—262. Mr William W. Rutledge, Storth End, Kendal. (A very good class.)

SILVER-SPANGLED HAMBURGH.—271. First, Mr James Dixon, Bradford. 268. Second, Mr Thomas Burnett, Hutton, near Preston. (Very good birds.) *Chickens of 1855.*—276. First, Mr James Dixon, Bradford. 277. Second, Mr James F. Greenall, Grappenhall, Warrington. Highly Commended.—278. Charles Adams, 6, High-street, Windsor, Berks. Commended.—273. Mr George C. Adkins, Edgbaston, Birmingham. 279. Mr William Wright, West Bank, Widnes, near Warrington.

POLAND (Black, with White Crests).—284. First, Mr Thomas Battye, Brownhill, Upper Mill, Holmbridge, near Huddersfield. 291. Second, Mr Thomas Pantou Edwards, Lyndhurst, Hants. Highly Commended.—286. Mr George C. Adkins, Birmingham. Commended.—292. Mr Thomas Pantou Edwards, Lyndhurst, Hants.

POLAND (Golden).—296. First, Mr R. H. Bush, Litfield House, Clifton. 300. Second, Mr James Dixon, Bradford. Highly Commended.—299. Mr Joseph Conyers, jun., Boar Lane Leeds. (A good class.)

POLAND (Silver).—308. Cup and First, Mr S. T. Baker, Manor House, King's Road, Chelsea. 310. Second, Mr James Dixon, Bradford. Highly Commended.—311.—Mr William Dawson, Selly Oak, near Birmingham. Commended.—313. Mr James F. Greenall, Grappenhall, Warrington. (A very good class.)

ANY OTHER DISTINCT BREED.—320. First, Mr Joseph Conyers, jun., Boar Lane, Leeds. (White Poland.) 322. Second, Mr H. D. Davies, Spring Grove House, Hounslow. (Rangoon.) Highly Commended.—321. Mr William Dawson, Hopton, Mirfield, Yorkshire. (Siera Ta-ook, or Sultan's Fowl.) 324. Mr J. Thurston, Hope Cottage, Rainhill. (White Silk.)

BANTAMS (Gold-laced).—331. First, Mr Gilbert W. Moss, Liverpool. 330. Second, Mr Thomas Hincks, Penn Fields, Wolverhampton.

BANTAMS (Silver-laced).—336. Cup and First, Mr James Dixon, Bradford. 338. Second, Master William Hurst Wright, West Bank, Widnes, near Warrington.

BANTAMS (White).—340. First, Mr Geo. C. Adkins, Edgbaston, Birmingham. 342. Second, Mr Gilbert W. Moss, Liverpool.

BANTAMS (Black).—346 and 344. First and Second, Mr Gilbert W. Moss, Liverpool.

GESE.—348. First, Mr H. D. Davies, Spring Grove House, Hounslow. 350. Second, Mr Henry Worrall, Knotty Ash House, Liverpool.

DUCKS (Aylesbury).—352. First, Mr H. D. Davies, Spring Grove House, Hounslow. 355. Second, Mr Edward Lister, Cassia Lodge, near Northwich.

DUCKS (Rouen).—369 and 371. First and Second, Mr Henry Worrall, Knotty Ash House, Liverpool. Highly Commended.—360. Miss Bell, Woodhouselees, Canonbie, Carlisle. 361. Mr John Harrison, junr., Snelston Hall, near Ashbourne. Commended.—363. Mr Henry Lafone, Liverpool. (A capital class.)

DUCKS (Any other variety).—374. First, Mr Joseph Conyers, jun., Boar-lane, Leeds. (Call.) 377. Second, Mr Henry Worrall, Knotty Ash House, Liverpool. (Labrador.)

TURKEYS.—379. First, Captain W. W. Hornby, R.N., Knowsley Cottage, Prescot. 378. Second, The Earl of Sefton, Croxteth Hall, Liverpool.

BEST COCK OF ANY AGE.

SPANISH.—381. Prize, Mr. Gilbert W. Moss, Liverpool.

DORKING.—383. Prize, Mr Thomas Ulloek, Windermere. Highly Commended.—389. Mr Daniel Harrison, Singleton Park, near Kendal. 396. Mr William Wright, West Bank, Widnes, Warrington. Commended.—392. Mrs. T. Townley Parker, Astley Hall, Chorley.

COCHIN-CHINA.—399. Prize, Mr William Copple, Eccleston, near Prescot.

GAME.—409. Prize, The Earl of Sefton, Croxteth Hall, near Liverpool. Highly Commended.—404. Mr Nathan N. Dyer, Bredon, near Tewkesbury. 407. Mr Lafone, Liverpool.

PENCILLED HAMBURGH.—415. Prize, Rev. Thomas Lyon Fellowes, Beighton Rectory, Acle, Norwich.

SPANGLED HAMBURGH.—417. Prize, Mr William C. Worrall, Rice House, Knotty Ash, near Liverpool.

THE HOUSEHOLD.

(We shall be much obliged by any of our readers sending us approved receipts in cookery, hints for household management, or any other domestic utilities, for insertion in this department of our columns.)

CHAPPED HANDS.—It may be useful to some of your readers to know that the vinegar from the Vinegar Plant is a most effectual cure for chapped hands. It is momentarily painful, but that is all. The following receipt for Cold Cream might be useful at this season, at a fourth of the price you pay at a chemist's:—

COLD CREAM.—One ounce of white wax put into a basin with four ounces of Almond-oil; place it *by* the fire till the wax is dissolved; when quite melted add nearly four ounces of Rose-water. This must be done very slowly, little by little. As you pour it in beat it up smartly to make the water incorporate.—AN OLD SUBSCRIBER.

GERMAN YEAST AND BAKING PREPARATIONS.—I am exceedingly glad to see a column of *THE COTTAGE GARDENER* devoted to so useful a subject as domestic economy, as it is one in which I have taken much interest. I hope, therefore, to be able, from time to time, to add my mite to the stock of information which is being accumulated. My present object in writing is to express my dissent from a statement which appeared in a letter inserted in a recent number, in which it was maintained that dried yeast, usually sold as German yeast, is of a doubtful, or even injurious character. This statement, I have every reason to believe, originated in the interested opposition of some persons who had a rival preparation for sale. Dried yeast is nothing more than the ordinary liquid yeast strained through closely woven bags, so as to separate the liquid portion. A considerable quantity is imported from Holland, being obtained from the Schiedam distilleries, and a large quantity is made in England. I lately had access to one of the manufactories of this article, and found that the workmen were drinking the liquor pressed out of the brewer's yeast, and that the only material added in the preparation was a small portion of Rice-starch, for the purpose of rendering the whole more solid. Dried yeast is, in fact, nothing more than the substance of the yeast plant freed from the fermenting liquor with which it is associated in liquid yeast. If any putrefactive or other injurious substance were added, the yeast plant would be killed, and the whole become useless. The best specimens of dried yeast give no evidence, when examined microscopically, or analytically, of containing anything injurious.

In my own household it has been used most largely, and I can testify that it produces a light, wholesome, and pleasant bread. All the baking powders and patent flours that I have examined contain, on the contrary, chemical substances which render the bread medicinal, or even injurious. One of these preparations consists of carbonate of soda, tartaric acid, and starch. When moistened these reagents act on each other, liberating carbonic-acid gas, which renders the

bread spongy; but tartrate of soda, an aperient saline, remains in the loaf, and it is not every person who requires a dose of Siedlitz powder with every slice of bread and butter. Another contains alum and carbonate of soda. This, also, liberates carbonic-acid gas when moistened; but the residuary matter is still more injurious.

In the *Times* of October 22nd is a communication respecting a plan for the manufacture of yeast. I hope to put it to the test of practice, and should it be as useful as there stated, will, without fail, communicate the results to the readers of *THE COTTAGE GARDENER*.—W. B. TEGETMEIER.

DUTCH SWEETBREADS.—Take two pounds of cold lean veal, or any other cold meat, and half-a-pound of suet, beat it in a mortar till quite fine, then add the yolk of an egg, a slice of bread soaked in milk, a little lemon-peel, pepper, salt, and cayenne; make them up in the shape of kidneys; rub them over with the yolk of an egg and bread-crumbs; fry a light-brown, and serve with good gravy.—E. B.

QUINCE CAKES.—Boil the quinces till quite soft; rub them through a sieve, and to a pint of juice add three-quarters-of-a-pound of loaf-sugar; mix all well together, and make it scalding hot, but do not allow it to boil; drop it upon tins in the form of cakes, and dry them in a cool oven, and before the fire.—E. B.

COLD FISH PUDDING.—Pick the fish-flesh from the bones, mince it and mix it with mashed potatoes, one or two well-beaten eggs, a little milk, salt, and an onion, minced and boiled; mix all well together, and press it into a shape, turn it out, brush it over with beaten egg, and brown in a Dutch oven; serve with melted butter in a sauce-tureen.—E. B.

MISS MOKAM'S CAKE.—One pound of butter stirred to cream, one pound of flour, one pound of currants, half-a-pound of loaf-sugar, one small nutmeg grated, twelve yolks of eggs, three ounces of citron, one glass of brandy. Half the quantity of whites of eggs, beaten separately, may be used.—E. B.

LONDON MARKETS.—JANUARY 21ST.

COVENT GARDEN.

We have but little alteration to report this week; the alternate changes from frost to humidity, and *vice versa*, have somewhat interfered with the supply of *Fruit* that is kept in store, and, consequently, we have had only limited supplies up by the railways. *Pears* now consist of *Glou Morceau*, *Ne plus Meuris*, *Nelis d'Hiver*, *Chaumontel*, and *Bishop's Thumb*. Of *Vegetables*, some excellent *White Brocoli* has come to hand from Cornwall, and realized good prices; all other sorts quite sufficient for the demand.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s.
" dessert	6s. ,, 10s.
Pears	8s. ,, 12s.
Peaches, per doz.....	—
Nectarines, per doz...	—
Plums, per sieve	—
Pine-apples, per lb...	2s. ,, 8s.
Grapes, per lb.....	2s. ,, 8s.
Foreign Melons, each	2s. ,, 4s.
Figs	—
Gooseberries, per qt..	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 22s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts per bushel	12s. ,, 20s.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d.
" Red, per doz.	2s. ,, 4s.

Cauliflowers, per doz.	4s. to 6s.
Brocoli per bble	1s. ,, 2s.
Savoy	1s. ,, 2s.
Greens, per dozen bunches	4s. ,, 6s.
Spinach, per sieve....	— ,, 4s.
Beans	—
French Beans, per hundred	3s. ,, 4s.
Scarlet Runners	—
Peas, per bushel	—
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz.....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Turnips, per bunch..	,, 3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s. 6d.
" Cabbage....	6d. ,, 8d.
Endive, per score ..	1s. 6d. ,, 2s.
Celery, per bunch. .	9d. ,, 1s. 6d.
Radishes, Turnip, per dozen bunches ..	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.

COVENT GARDEN—Continued.

Small Salad, per punnet.....	2d. to 3d.	Mushrooms, per pot 1s. 6d. to 2s.	
Artichokes, each	3d. ,, 6d.	HERBS.	
Asparagus, per bundle	5s. ,, 8s.	Basil, per bunch	4d. ,, 6d.
Sea-kale, per punnet	2s. ,, 3s.	Marjoram, per bunch	4d. ,, 6d.
Rhubarb, per bundle	1s. ,, 1s. 6d.	Fennel, per bunch ..	2d. ,, 3d.
Cucumbers, each	1s. ,, 3s.	Savory, per bunch ..	2d. ,, 3d.
Vegetable Marrow, per dozen	—	Thyme, per bunch ..	2d. ,, 3d.
Tomatoes, per punnet	—	Parsley, per bunch ..	2d. ,, 3d.
		Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, JAN. 18.—The Corn Market, this morning, has received a check, owing to the rumours of peace. Very little business has resulted in Wheat, both sellers and buyers being indisposed to operate in the present uncertain juncture. Barley is quiet. Oats are taken in retail, as necessities arise, and prices are the same as on Monday. All other Grain and Flour remain equally inactive.

WHEAT, Essex and Kent red, old.....	—s —s —s, fine —s —s	0s
Ditto ditto new.....	72s 77s —s, fine 79s —s —s	—s
Ditto ditto white old.....	—s —s —s, fine —s —s —s	—s
Ditto ditto new.....	76s 85s —s, fine 86s —s —s	—s
Foreign, red.....	80s 88s —s, fine 88s 94s —s	—s
Ditto, white.....	84s 90s —s, fine 90s 96s —s	—s
RYE	52s 54s, fine —s —s	—s
BARLEY, grinding.....	34s 36s, fine 38s —s	—s
Distilling.....	36s 38s, fine 40s —s	—s
Malting	40s 42s, fine 44s —s	—s
MALT	74s 76s, fine 80s —s	—s
PEAS, hog, new.....	40s 42s, fine —s —s	—s
Maple	46s 48s, fine —s —s	—s
White	50s 54s, fine —s —s	—s
Blue	56s 58s, fine —s —s	—s
BEANS, pigeon.....	52s 56s —, new 48s 50s —s	—s
Ticks for splitting	46s 48s —, new 40s 42s —s	—s
Harrow	50s 54s —, new 41s 46s 48s	—s
OATS, English feed	25s 26s, fine 26s 28s	—s
Poland or brew	28s 29s, fine 29s 31s	—s
Scotch potato	32s 33s, fine 33s 34s	—s
Ditto feed	30s 31s, fine 31s 32s	—s
Irish potato.....	27s 29s, fine 29s 30s	—s
Ditto feed white.....	24s 25s, fine 25s 26s	—s
Ditto black.....	25s 26s, fine 26s 27s	—s
Foreign feed free	24s 26s, fine 26s 28s	—s
Poland or brew	28s 29s, fine 29s 31s	—s
FLOUR, Town made, per sack.....	70s 72s 75s*, Seconds 65s 68s	—s
Essex and Suffolk	58s 60s	—s
Norfolk	57s 58s	—s

* This is a nominal price.

HOPS.

BOROUGH MARKET, MONDAY, JAN. 14.—The recent improvement in our market, both as to demand and prices, continues to be fully maintained, especially for the choice descriptions of Hops, and good healthy brown samples, for which there is a fair inquiry. The currency may be quoted as follows:—

Mid. and East Kents, 70s. 112s. to 130s.; Weald of Kents, 65s. 90s. to 100s.; Sussex Pockets, 60s. 84s. to 95s.

FRIDAY, JAN. 18.—The demand for Hops continues moderate, and prices remain firm at fully the rates of last week.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.	Rowan	80s. ,, 90s.
Ditto, 2nd cut	90s. ,, 130s.	Straw, flail	30s. ,, 36s.
Meadow Hay	90s. ,, 130s.	Ditto, machine	28s. ,, 30s.

POTATO.

SOUTHWARK WATERSIDE—JAN. 14.—Although the weather has set in cold and healthy, trade is very heavy at the following quotations. We have also to report several fresh arrivals during the last few days:—Kent and Essex Regents, 85s. to 95s.; ditto Shaws, 75s. to 80s.; York Regents, 100s. to 110s.; Lincolnshire Regents, 85s. to 95s.; Wisbeach and Cambridge Regents, 85s. to 90s.; Bedford Regents, 0s. to 0s.; ditto Shaws, 0s. to 0s.; Norfolk Regents, 80s. to 90s.; ditto Whites, 0s. to 0s.; Scotch Regents (East Lothian), 85s. to 0s.; ditto (Red Mould), 90s. to 0s.; ditto (Perth and Fife), 75s. to 85s.; ditto (North Country), 70s. to 0s.; Dahlias and Rattlers, 0s.; Blues, 0s.; Orkney Reds (East Lothian), 80s. to 90s.; ditto ditto (Red Mould), 90s. to 0s.; Scotch Cups (Perth and Fife), 70s. to 0s.; ditto (North Country), 60s. to 0s.; Irish Kemps and Clusters, 65s. to 70s.; ditto White Rocks, 65s. to 70s.; ditto common Whites, 0s. to 0s. per ton.

POULTRY.

The change in the weather, a moderate supply, and an unusually small demand, has caused depression during the past week, and the previous prices have hardly been maintained.

Cock Turkeys ..	10s. to 14s. each.	Pigeons	1s. 3d. to 1s. 4d. each.
Hen Ditto	7s. to 7s. 6d. ,,	Larks ..	1s. 3d. to 1s. 6d. per doz.
Large Fowls ..	5s. to 5s. 6d. ,,	Wild Ducks	2s. 3d. to 2s. 6d. each.
Smaller do.	3s. 6d. to 4s. 6d. ,,	Teal	1s. 9d. to 2s. ,,
Chickens	2s. 6d. to 3s. ,,	Woodcock ..	4s. to 4s. 6d. ,,
Geese	7s. to 7s. 6d. ,,	Snipe	1s. 9d. to 2s. 0d. ,,
Pheasants	3s. to 3s. 6d. ,,	Rabbits ..	1s. 4d. to 1s. 6d. ,,
Partridges	2s. to 2s. 3d. ,,	Wild do.	10d. to 1s. ,,
Hares	2s. 6d. to 2s. 9d. ,,		

PROVISIONS.

The following are the quotations:—

BUTTER.—Cwt.		HAMS.—Cwt.	
Cork.....	100s. to 112s.	Irish.....	82s. to 86s.
Limerick.....	98s. ,, 102s.	Westphalia	72s. ,, 76s.
Carlrow	108s. ,, 112s.		
Sligo	100s. ,, 105s.	LARD.—Cwt.	
Carrick.....	108s. ,, 112s.	Bladdered	76s. to 83s.
Waterford	100s. ,, 106s.	Kegs.....	68s. ,, 70s.
Holstein	102s. ,, 116s.	P.M. beef (304lb.)	105s. ,, 0s.
Friesland	113s. ,, 116s.	P.M. pork.....	95s. ,, 97s. 6d.
BACON.—Cwt.		CHEESE.—Cwt.	
Waterford sizeable	56s. to 62s.	English, NewCheshire,	70s. to 84s.
Heavy	54s. ,, 58s.	Cheddar.....	74s. ,, 90s.
Limerick sizeable ..	0s. ,, 0s.	Gloucestershire, dble.	66s. ,, 73s.
Hambro'	56s. ,, 58s.	Ditto, single	60s. ,, 70s.
Bale middles	0s. ,, 0s.	Foreign—	
Tierce middles	61s. ,, 0s.	Edam	56s. ,, 60s.
American—		Gouda	50s. ,, 56s.
Singed sides	56s. ,, 58s.	Kanta	28s. ,, 0s.
Boneless middles ..	0s. ,, 0s.	American	56s. ,, 62s.
Short middles.....	0s. ,, 0s.		

MEAT.

	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
Beef.....	3 6	4 10	5 2	Veal.....	4 6	4 10	5 2
Mutton	3 8	4 6	4 10	Pork.....	4 2	4 6	5 0

BREAD.

The price of Bread in the City and at the West End is still maintained at 10d. to 11d. the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. ,, 1s. 2d.
Ditto Tegs and		Leicester fleeces....	1s. ,, 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hog-		Combing skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

TO CORRESPONDENTS.

PLANTING RED CURRANT-TREES (*S. T. Morris*).—Plant them five feet apart in each row, and let the rows be the same distance apart.

SPANISH PRIZE FOWLS AT PRESTON (*An Admirer of Spanish*).—Such complaints should be made at the time, and to the Committee. Under no circumstances can we insert such communications under an anonymous signature without knowing the writer's name.

PROTECTION OF PLANTS (*An Amateur, Shirley*).—A mere mention of these contrivances by name was all that we intended. That for covering pits is a patented thing, and all good gardeners have ever set their faces against the Patent-office, and those who support it. The propagating contrivance is not half so handy as the double pot system, which all our writers use and write about. If you are in earnest about these improvements, why not try something or other in advance?

PEAR-TREES FOR SOMERSETSHIRE (*A Well-wisher*).—The Pears for the front of your house, which, you say, is due south, may be either *Crasane*, *Brown Beurre*, or *Colmar*; and for the western aspect, *Glou Morceau*, *Nelis d'Hiver*, or *Beurre de Rance*.

PREVENTING HENS EATING THEIR EGGS (*L. S.*).—Watch them, and take the egg away as soon as laid. Keep wooden eggs, painted white, as nest-eggs. If a sitting-hen eats her eggs we know of no remedy. If another hen wants to sit, remove the eggs to under her.

ECONOMICAL GREENHOUSE (*W.*).—Buy the three numbers of THE COTTAGE GARDENER we named in answering a similar question last week.

NAMES OF FRUIT (*G. F. Wills*).—No. 1. appears to be *Blenheim Pippin*; No. 2, *Golden Reinette*; No. 3, Pear, a seedling, and non-descript, and never will ripen; consequently, worthless. You had better graft the tree in spring with some good sorts.

GERARD'S HERBAL (*V. V.*).—Write to Mr. Petheram, bookseller, Holborn. There are abundant notices of the *Druids*, we think, in Whitaker's "History of Manchester;" and in Turner's "History of the Anglo-Saxons."

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WEEKLY CALENDAR.

D M	D W	JAN. 29—FEB. 4, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
29	Tu	Apis mellifica.	29.730—29.597	35—17	N.W.	—	46 a 7	41 a 4	morn.	22	13 20	29
30	W	Culex pipiens.	29.718—29.669	33—25	N.E.	—	45	42	0 56	☾	13 31	30
31	Th	Hilary Term ends.	29.498—29.425	31—23	N.E.	—	43	44	2 11	24	13 40	31
1	F	Symnthus fuscus.	30.002—29.786	33—17	N.E.	—	42	46	3m 31	25	13 49	32
2	S	PURIF. CANDL. DAY.	29.990—29.752	32—27	E.	02	41	48	4 50	26	13 57	33
3	SUN	SHROVE SUNDAY.	29.510—29.429	39—23	E.	05	39	49	6 2	27	14 4	34
4	M	Sphodrus collaris.	29.384—29.229	39—33	E.	02	37	51	7 0	28	14 11	35

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 44.2°, and 34.7°, respectively. The greatest heat, 57°, occurred on the 1st, in 1852; and the lowest cold, 13°, on the 2nd, in 1831. During the period 110 days were fine, and on 56 rain fell.



John Lindley

VERY recently we recorded a living example of a country gardener's son deservedly elevated for his deeds of noble daring and honourable conduct to be the associate and the admired of our country's nobility. It is noble and animating to see such examples of the

gifted son of the poor man elevated upon the pinnacle to which he has buffeted his way—
“Plough'd to his point against the adverse stream;”
and we have this day to place before our readers another such example in DR. JOHN LINDLEY.

Dr. Lindley was born at Catton, near Norwich, where his father, Mr. George Lindley, for many years carried on the business of a nurseryman and seedsman; but, being unsuccessful in business, he ultimately became foreman to Messrs. Miller and Sweet, of Bristol Nursery, where, no doubt, many of our professional readers knew him personally. The early life of the subject of this notice was not distinguished by any remarkable occurrence. His rudimentary education being obtained in his native county, he was subsequently sent to France to prosecute the more advanced branches; and, on his return, in consequence of his father's reverses, he was early thrown upon his own resources. These resources were a well-stored mind, great self-reliance, and a ready perception of the art of rising. Soon after his return from the continent he attracted the notice of Sir Joseph Banks, by being engaged in a controversy with Sir James Edward Smith, late President of the Linnæan Society. Sir Joseph favoured the opinion of Mr. Lindley, and appreciating the ability of the young controversialist, he took him under his patronage, and through his influence he was employed by the Horticultural Society, to whose "Transactions" his father had been a contributor.

The Horticultural Society having determined, much against the wishes of many of its Fellows, to occupy an extensive garden, finally arranged, in 1821, for that at Chiswick, and the Society is now in possession of those thirty-three acres, held upon a lease of sixty years, renewable every thirty years for ever, at a rental of £300 *per annum*, but with power to the Society of relinquishing its obligations at any time upon giving twelvemonth's notice.

The Garden required for its care a resident staff, and as Assistant Secretary of the Garden we find, in 1822, Mr. Lindley was for the first time announced as an officer of the Society. As holder of that office he had to superintend the collection of plants, and all other transactions in the Garden, besides keeping all accounts, and minutes of reports. One of the first of his reports states, that for the completion of various works "the Council had deemed it expedient to raise a loan of £6000, to be liquidated after the rate of £500 *per annum* out of the Society's income. Such liquidation was rendered impossible by the continued lavish expenditure, and, what was worse, the involved state of the Society was concealed, even at the expense of falsehood, by the expressed direction of the Secretary, Mr. Sabine. In 1850, deception could go no further without detection, and the truth then burst upon the Society, with paralysing certainty, that it was indebted no less a sum than £19,751.

A Committee of inspection was appointed, and this Committee reported "that the embarrassments of the Society have arisen chiefly from the imprudence of the Council in taking a Garden on too large a scale." In eight years nearly £20,000 had been expended upon it!

The Committee further reported that the Gardener was incumbered by the supervision of the Secretary; that dissatisfaction existed as to the unfairness and partiality shown in distributing seeds and grafts; that

mere botanical enriquiries were too much cultivated; that defalcations occurred, yet the defaulter was retained; and that there was a want of courtesy, a negligent management, profuse expenditure, and an injudicious contracting of engagements, without due consideration of the means by which they were to be fulfilled.

Before this explosion took place Mr. Lindley had been raised to the post of Assistant Secretary; and he wrote as follows to Mr. Sabine:—

"Acton Green, Friday Evening, Feb. 12, 1830.

"Sir,—It has been impossible for me to misunderstand what occurred in the Council to-day. Upon being called into their presence, I found that an impression had been made upon them, that certain estimates, prepared by the last Council, and sent to the Committee, had been first assented to by me before the Council, and then dissented from by me before the Committee. It is possible that this impression may have ceased with my disavowal of the charge, and that the Council see that no such stigma attaches to me; but this does not satisfy me. I conceive that you, as a gentleman, and professing to be my friend, were bound not to have allowed any such impression to have existed, as you must have known that I was above suspicion upon such a point. You know perfectly well that I have always protested against the statements by which the Council have frequently been deluded into sanctioning measures and expenditure, which, had they known the real state of the Society's affairs, they could not have countenanced; and that I was entirely opposed in opinion to the very heads of estimate objected to by the Committee. You know I have always dissented from any higher value than £2000 being placed upon the library, drawings, and models, which are estimated in the return to the Committee at £3580. You are perfectly aware that I remonstrated against the exaggerated amount of assets in the balance-sheet laid before the Council, and I believe given to Lord Essex so recently as Jan 22 last; that on account of those exaggerations I did not comply with your request to put a copy of that document into the hands of Mr. Gordon; and that one of my objections to it was the valuing of the *Transactions* at £9691; the information I had obtained at your request was, that they were only worth £1000., as I told you over and over again; and, consequently, you must have known that I could not have assented to a statement in which their value is fixed at £2000. You could not be ignorant that I should have objected to £500 being estimated as the value of the fruit-room and sheds; for you yourself, not a month since, told me that, by the lease, no buildings, except the glass-houses at the garden, are the property of the Society. All these things being thus, I think I have a right to enquire why you allowed the Council to suppose that I had assented to their estimates. You may perhaps say that you can explain this to my satisfaction; but I have both seen and heard lately too much of explanations to take them against the evidence of my senses. I see clearly that an intrigue is going on for the purpose of making it appear that I am at one time allowing myself to be identified with those miserable proceedings which have brought the Society to its present state, and to which I have been constantly and openly opposed, and at another disavowing those proceedings before the Committee. I have never been a party to the exaggerations of the Society's means, and concealment of the Society's debts, by means of which many honourable and excellent men in the Council have been unfortunately induced to believe a ruined Society to be in a state of prosperity. I have been steadily opposed to the measures by which that ruin has been brought about; and I do not choose now, at the eleventh hour, either to be enjoined into a suppression of my opinions, or to allow you to make the world believe that I now, for the first time, entertain sentiments adverse to your proceedings. That there may be no farther misconception upon this and other points, I have written you this letter, a copy of which I shall give to all persons whom it is likely to interest.

"I am, Sir, &c., "JOHN LINDLEY."

To this letter the only objection is—and it is a strong objection—it ought to have been written years before,

and addressed to the Society's Council. Mr. Lindley admitted that he knew of the mismanagement, extravagance, and deceit for years, yet it never seems to have struck him that it was his imperative duty, as the Society's servant, to make known to it what he knew was tending to its ruin. The only palliative for this glaring neglect of duty is, that Mr. Sabine had brought him forward; and it may be true, as Mr. Loudon said, that "with the active friendship of Mr. Sabine, in no other office or situation, in London or elsewhere, could Mr. Lindley have enjoyed the same advantages, or advanced himself so rapidly as a man of the world, a man of science, and a gentleman."

Such palliation, however, is of but little force when we have before us the unmitigated outpouring of revelations against Mr. Sabine, which Mr. Lindley made to the Committee of Inquiry. There was no consideration then for his falling friend; the only anxiety was to escape from being involved in his fall, and to mount upon his ruin. If he had been actuated only by a virtuous indignation and sense of duty, why did he not reveal his avalanche of evils before?

Mr. Sabine fell; he retired from the Secretaryship, and was succeeded by Mr. Bentham, Mr. Lindley continuing as his Assistant Secretary. "We have no doubt," said Mr. Loudon at the time, "that the Society may linger on awhile, and we hope long enough to pay off all debts, and till Mr. Lindley meets with something as good, or better, than the Vice-Secretaryship. As to the public, whether the Society dies a year sooner or later is a matter of no sort of consequence."

So thought not, however, Mr. Lindley, and his friends. Their object continued the same as Mr. Sabine's, namely, to have the Society preserved as a high aristocratic association, and Mr. Loudon probed the chief ulcer which still afflicted the Society, when he said he should have hoped more hopefully for it if Mr. Bentham and Mr. Lindley loved Gardening more than Botany. That they did not take warning from the errors, tyrannies, and extravagancies, of the previous management is quite certain; and if the Committee of 1830 could be reassembled, we know of much of their former Report which would be equally applicable for any year in the succeeding quarter of a century.

Mr. Lindley's connection with the Horticultural Society, sustained by his undoubted great acquirements as a Botanist, aided his rapid upward progress. The *Botanical Register*, established by Mr. Sydenham Edwards, in 1815, passed in 1826 to the editorship of Mr. Lindley, having previously been under the management of his friend Mr. Bellenden Ker. The sound knowledge he here exhibited, as well as in his *Rosarum Monographia*, and *Synopsis of the British Flora*, published in 1820, fully justified the University of London in placing him in the Chair of Botany, from which, as Professor, he delivered his Introductory Lecture at the close of April in 1829. In this he boldly made a stand in favour of the Natural System of Botany, and announced his intention of adopting it as the basis of his course of Instruction. Mr. Tegetmeier says, in a letter now before us, "I am a very old pupil of Dr. Lindley's. Twenty years ago I took his gold medal at University College, and maintained the superiority of his teaching by taking the silver botanical medal of the Apothecaries' Company, open to the competition of all the students in England. We have long been strangers; but I can truly say, as a lecturer, he was one of the best teachers

I ever heard. Free and conversational in his manner, his matter was excellent, and methodically arranged. I entered his class with little knowledge of, and less liking for, Botany, and left it with the results that I have mentioned, having amongst my competitors, Dr. W. B. Carpenter, Dr. Lankester, Dr. Jenner, &c."

In 1832 Mr. Lindley obtained a handle to his name, having procured from a German University the degree of "Doctor of Philosophy." From that time he was known as Dr. Lindley. In 1838 he became Vice-Secretary of the Horticultural Society—a post which he has ever since continued to hold.

We have little more to chronicle of Dr. Lindley beyond a list of his principal publications, in addition to those already noticed, and they deserve the general criticism that they are all excellent.

In 1833 he published his *Nixus plantarum* (Approximations of Plants), and in 1838, *Flora Medica*, and *Ser-tum Orchidaceum*, besides reporting upon the shortcomings at *Kew Gardens*, a report which is one more testimony how very easy it is to detect the mote in a brother's eye while we are regardless of the beam in our own.

In 1839 appeared his *Ladies' Botany*, and *School Botany*, and in 1840, his *Theory of Horticulture*—decidedly one of the best efforts to illuminate and direct practice by science.

In 1841 he published his *Elements of Botany*, and in conjunction with Mr. Paxton and Mr. Dileke, founded the *Gardener's Chronicle*, over which he continues to preside as editor. The same year, also, he became Professor of Botany at the Royal Institution, and published, in conjunction with Mr. Hutton, *The Fossil Flora of Great Britain*.

In 1846 appeared his largest and valuable work, *The Vegetable Kingdom*.

We must here close our very imperfect notes, and we will do so by expressing a hope that for many years to come our generation may benefit by the high botanical acquirements of Dr. Lindley; but as fervently do we hope that he may not continue in the Secretariat of the Horticultural Society for as many days. He was brought up in the wrong school to be fitted for this. He never has forgotten the splendour of the Society under Mr. Sabine—that splendour when £3,106 were paid to Mr. Gunter for one repast at Chiswick—and he is equally the faithful disciple of the same gentleman's doctrine—"look to the patrician order."

This will not do now; nor was it a doctrine which, if acted upon, ever formed a broad, solid, and permanent basis for any Society. No Society in England is ever-green that is not planted and cultivated by the middle classes, and Dr. Lindley neither in temperament nor in habits is calculated to win them to a Society's subscription list. Much less is he so gifted as to win golden opinions from the men of the spade. We have very abundant evidence of this; but the following, which refers to a transaction whilst he was Assistant-Secretary of the Garden, may suffice as an illustration:—

"Did you hear," a writer asks of the first President of the Society,— "Did you hear of the poor man who was set to taste three hundred and sixty-five sorts of Potatoes, at one sort per day, and then to write a description of the flavour of each—a pigeon a day for a month they say kills a man—but to carry the flavour of two shades of a *Red Champion* or an *Ox Noble* on the tongue from one day to the next, so as to form an estimate of the difference of taste between each, and then to distinguish both from the taste of a *Lady's Finger*, and so go on through the whole series, and write down his sensations in a journal, was too much even for a poor Scotchman: he rebelled, and was dismissed as contumacious, after having tasted through a quarter of the task—at least so goes the story, or rather so says the man."

THE first Meeting of THE ENTOMOLOGICAL SOCIETY for the present year was held on the 7th instant, the chair being occupied by J. O. Westwood, F.L.S., Vice-President, who stated that it was his painful duty to announce to the Meeting that Mr. Curtis had resigned the Presidency of the Society. The circumstances which had led to this step, taken in conjunction with the sad state of Mr. Curtis's health, are greatly to be deplored. We cannot but remark that the latter circumstance alone ought to have induced proceedings on the part of some of the members of a character opposite to those which have led to this result.

The list of donations received since the last meeting included works presented by the Linnæan Society, the Natural History Society of Dublin, Messrs. Stainton, Walker, &c.

Mr. Samuel Stevens exhibited a fine series of *Lucanidæ*, recently captured at Sarawak, by Mr. Wallace. Amongst these were some fine varieties of *Odonto labris bicolor*, *O. Brookeana*, named after the Rajah Brooke, and *Cladognathus Turandus*.

Mr. Stainton exhibited a specimen of the fine Tiger Moth, *Callimorpha Hera*, a species new to this country, which had been captured near Newhaven, by Mr. Henry Cooke, of Brighton, who also communicated a long account of other specimens which had been seen and captured on the southern coast, so that there appears to be no reasonable ground, as the species is abundant on the opposite coast of France, why this beautiful insect should not be a true native of our own country.

Mr. Edward Shepherd exhibited a specimen of the rare Beetle *Lebia Crux minor*, taken near Selborne, by the Rev. W. Livesay.

J. Aspinall Turner, Esq., of Manchester, exhibited a number of fine species of *Colcoptera*, recently received by him from Texas; also a magnificent pair of the *Goliathus giganteus*, one of the rarest species of Beetles, of which no specimen of the female had been previously obtained. These insects were received from the River Gaboon, in tropical Africa, a considerable distance from the station where the allied species, *G. Drurii* (Westwood), has been captured.

Mr. Frederick Smith, of the British Museum, exhibited a box of specimens of the nests of various social and solitary species of *Wasps* and *Bees*, recently collected in Natal, by Herr Givenzius; fortunately, many of the nests were accompanied by specimens of the insects by which they had been constructed. The nests themselves are of various materials, papyraceous, earthy, clay, or marl, and varied also in the form of the cells, some being round, and others with the combs entirely composed of hexagonal cells, which is also the shape of the outer cells, thus disproving the theory that the hexagonal form was due to a supposed pressure of cylindrical cells against each other.

Mr. Foxcroft exhibited some fine varieties of the beautiful Moth *Geophora Linneella*, from the neighbourhood of London.

Mr. Newman read a paper containing descriptions of three new species of Beetles, from Australia, in the collection of Mr. G. R. Waterhouse, belonging to the singular group *Pseudomorpha*.

Mr. Lubbock described a number of species of minute *Crustaceans*, from the Atlantic Ocean, belonging to the tribe *Entomostraca*, twenty-three of which were new to science. Mr. Lubbock also entered into an inquiry as to the relative homologies of their various organs.

Mr. Westwood read a monograph on the singular Australian genus of Beetles, *Cryptodus* (Med'), of which he described several new species.

Mr. Janson read a paper on two species of small *Colcoptera*, brought under the notice of the Society by Mr. Curtis, at a previous meeting, namely, the *Hygrolus*

bisulcator, and *Apion Curtisii*, both which names were stated to require alteration.

Mr. Stainton read descriptions of three new species of *Microlepidoptera*, reared in India by Mr. Atkinson.

THE VEGETABLE GARDEN IN WINTER.

THE readers of THE COTTAGE GARDENER must not suppose, that because I may interpose a paper occasionally about other subjects than my proposed series of fruit papers, that I will abandon them: not so. Sometimes ideas spring up suddenly in the mind on passing subjects, which are, perhaps, best dotted down whilst fresh; and besides this, if writers were not to get a slight change of subject occasionally, they might become troubled with what has been called a monomania.

My subject is but a humble one, but it is a useful one to discuss, nevertheless; and although, like many other gardening matters, it has been handled a thousand and one times, at least, may be pronounced in its nature inexhaustible.

Plantmen, and others than kitchen-gardeners, are pretty well agreed, that in order to acclimatize a shrub, or tree, or, rather, in order to enable it to endure a very low temperature, it is essential that it be not too full of fluids, must not have too much late root action; and just so with fruit-trees, as to the ripening the wood; and, we may yet add, the tender vegetables of the kitchen-garden; for there is such a thing as vegetable gluttony. Well, then, let us observe, that the plantmen, the half-hardy tree gentlemen, and the mere kitchen-gardener, may here fairly cast in their lot together.

Admitting, then, that even a Cabbage, a Brocoli, or a Lettuce, should not be thus gorged at the eleventh hour; what may we do?

I will shortly say what I have done for two or three winters.

Many of our vegetables required to stand the winter are apt to become what gardeners term proud, in the autumn; and it is pretty well known, that *Cauliflowers* for the ensuing spring are thus apt to "button," as we term it; in other words, to show prematurely for blossom. Even *Cabbage plants* may not only be too early, but too gross to withstand with safety nearly a score degrees of frost. *Lettuces*, too, for early spring use, are apt to suffer exceedingly if over strong or gross; and the same may be said of *Spinach*, if decayed manure in excess be used. As for the *Brocoli* family, we all know full well how very liable it is to suffer in extreme winters, especially if very highly manured. We have repeatedly known such things as the *Brocoli*, *Savoy*, *Celery*, *Endive*, &c., endure the winter in the seed bed very tolerably, when those transplanted from the same spot, and placed under the highest of culture, have quailed before the frosts and cutting winds.

Our readers may remember, that about thirty years since a new plan of preserving Brocoli sprang up, and it consisted in falling the plants, or, as gardeners more commonly term it, "heeling them." This, by its then advocates, was recommended, on the footing that they were, with their heads laid to the north, hardier, and that the snow, nature's protector, when the great Ice King and rude Boreas unite in showing their might, might not melt so readily. So far, so good; but the ingenious inventors of this practice left, in my opinion, one-half of its merits unclaimed. They forgot, or overlooked, the point that I wish here to press, which is this:—that by lowering a certain per centage of this vegetable pride we confer, in a nearly corresponding degree, extra hardihood. The Brocolis, in this case, loose half their roots, and, as a necessary consequence, they become less succulent in habit; in other words, more hardy.

But as to the practice I proposed to relate, and its results; this I will proceed to state. Last year, it occurred to me that this reducing the sap of over-succulent things, if worthy the name and recognition of a principle, ought to be pushed much further; that it possibly was a thing of considerable breadth as to its application. To begin, then. In the last week of October, I took up some scores of *Endive* plants, which had been planted out in rich soil, from a sowing at the very end of July, planted specially for wintering in frames or pits. These strong plants, fit for the salad bowl, all but blanching, were taken up with balls of earth, and removed to a spot where the sun and wind could operate freely upon them, and where they could receive a little covering in the event of frost. They were simply placed on the surface of the ground, not planted; and here they remained about a fortnight, by which time the bulk of earth was nearly dry, and the foliage, of course, flagging considerably. They were then removed to frames, and planted close together, in order to economise room; and now I have to state, that this lot of *Endive* kept weeks longer than the other portion, which was removed in all its freshness.

Lettuces, too, from a sowing in the second week in August, were becoming very gross, the soil having been too rich; these were pulled up by hundreds, thrown on the top of the bed, and lay there for two or three days, by which time they, too, were flagging much; these were planted thickly together, as is usual in winter, and I found them incomparably hardier than plants undisturbed, and they were second to none in point of excellence in the ensuing May and June. And thus I have done this season, more extensively still, serving Cauliflowers, Cabbage plants, &c., precisely the same. As for Cabbage plants, they will endure much of this sort of usage; and I think it probable, that where it is important to cut very early Cabbages, they might be sown a fortnight earlier than usual, or even much more, say in the middle of July, and pulled and thrown on the surface to flag when strong plants: such planted out, finally, about the middle of September, would, probably, make heads weeks before gross, young plants treated as is usual, and would certainly, at least, winter better.

Many gardeners, as well as myself, must have been frequently surprised at observing the remains of seed-beds of Celery, *Endive*, Savoy, Brocolis, Cauliflowers, &c., endure the winter better than those under the highest culture, and protected during severe weather by litter. And whence this contradictory result, but from poverty at the root?—the plants being not so full of fluids.

It is strange how long such succulent plants as *Lettuces* will endure laying on the surface of the ground in October. I, this season, left a bunch of the *Bath Cos*, stout little plants, from a sowing in the first week of August, on the soil, fully exposed to the atmosphere. They were thrown down in the second week of October, and lay there unmolested until the middle of November, and they looked nearly as fresh then as when first drawn from the seed-bed. It was done to test them, as I had plenty to spare. Does not this seem to show that they must absorb powerfully by the foliage? But of all the plants that will endure such rough handling, I have met with none to excel the common *Nasturtium* and the *Tomato*. I once threw some trimmings of *Nasturtiums* on an old rubbish-heap, almost reduced to soil, in July; they were in full bloom, and there they were blooming away all the summer, and, at last, had struck root into the rubbish in all directions. The only suffering they underwent was to lose three-parts of their foliage, and this was an immense advantage; for they were much more showy than their congeners petted in good garden soil. What a hint this for root-pruners!

As to *Tomatos*, I always plant them out in hillocks, raised nine inches above the ground level, in order that when they become troubled with vegetable obesity they may be humbled accordingly, without being utterly destroyed. If any person will try his hand fairly at this matter, he will, I am assured, soon perceive the rationality of the proceeding. Let him, in dealing with the *Tomato* in our midland or northern counties, do this:—let him make a coaxing compost to put about them when turning them out of their pots at the end of May, in order to get them to cover the wall as speedily as may be. As soon as they are in high vigour, say the end of June, let him chop away a portion of the hillock, roots and all; this will soon induce a flowering habit, and, henceforth, until they have a crop on them, beginning to colour, in the early part of September, let them be well pinched, or stopped, and many of the huge leaves cut *half* away, in order to let the sun warm the wall. This done, let him cut half the roots away, at least; again, at the precise moment when the earliest bunch is nearly ripe, and the others, in succession, want to colour, and I will engage he will repeat the same practice the ensuing year.

But if these bo facts, cannot our acclimatisers of choice trees, shrubs, or plants, take a lesson from them? And, again, why not, as before observed, push the idea further as to general gardening?

I do hope that we shall hear more of this matter, which should not be lightly esteemed by any, because they had hitherto attached to it a trifling amount of importance. Old gardeners, in all quarters, could say good things about it, both *pro* and *con*; by all means let us invite their co-operation, and, in the language of Mr. Beaton, "*fresh blood*," also; an idea worthy of a great hybridiser.

I have no doubt that many a 'prentice in gardening could write and suggest most excellent things, if we could but induce them to try their hand.

Before I conclude this somewhat desultory paper, let me advert, taking advantage of the latitude my text affords, to the effects of frost on vegetables. The country at large is, no doubt, by this time, (January 15th), aware of the severe character of the frost; and strange it is, that 20° of frost has been accounted an ordinary affair for three winters successively.

Doubtless, most gardeners have done as I have done; scraped all the litter together they could, and covered tender vegetables. Let, me then, beg of those who are not well experienced to take care how they uncover when a thaw arrives. We never uncover until we can thrust our fingers easily into the soil beneath the litter, and this always on an afternoon, being afraid of the evil effects of sudden sunlight. Moreover, we do not then totally uncover, but have a very thin screen of loose straw for two or three days afterwards.

I may here observe, that the mode of covering up vegetables, as well as other things, requires and deserves some consideration; and, I believe, that not only vegetables, but tender shrubs come fairly within this practice. I hold it essential that the soil and all about the subject to be covered, should be frozen slightly before the plant or plants are covered. If a bed of *Endive*, or *Lettuce*, be covered at the moment the frost begins, to prevent its being frozen, it is almost certain that they will suffer more from a kind of gargreous rot than from low temperatures.

My practice is to let the crops intended to be protected freeze slightly for a few hours; then, the litter being ready, and close to the crops, to cover them with a thin screen; thus they remain until the soil about them is frozen two inches in depth, and then, and not till then, the whole of the litter is thrown over them.

R. ERRINGTON.

CRIMEAN WINES.—“Our civil landlord (at Kaffa) placed before us a good German dinner. I had heard so much of Crimean wines, that I was curious to become acquainted with them in the neighbourhood of the spot where they were prepared. “What wine do the gentlemen require?” was the reply of our host to our demand. “Will you have Forster, Traminer, Johannisberger, or Leistenwein? Or are you, perhaps, less patriotic in your tastes, and prefer the wine produced from the French, Spanish, or Cape vines? I should then recommend a countly Bordeaux of the first quality!” “We have no wish for foreign wines, my dear countryman, but for those of the Crimea,” we replied. “I see, gentlemen,” returned our host, “that it is your first visit to the Crimea; for you would otherwise have been aware that all the wines I have proffered to you are prepared from grapes which ripen here. The proprietors of our vineyards have procured the best vines at great expense from every country, even from America; but they continue to call the wine after the original vine which has supplied the grapes. For instance, my Rhine wine is not prepared on the Rhine, but on the southern coast here; and as I before said, only from the grape which was brought from the Rhine. As the estates of Count Woronzoff (he was not then Prince) produce the best wine, all that is good also obtains the name of ‘countly,’ even if not produced on the Count’s vineyards.” Thus enlightened, we drank in succession those which had the highest reputation—Johannisberger, Steinwein, St. Julien, Champagne, Madeira, Cape wine, and found that some of them were by no means bad, especially to those whose tastes were not rendered fastidious after a considerable residence in Asia; but yet they had not the slightest resemblance to the varieties whose names they bore. The only thing in common was the price; since for the sum of two rouble assignats (about two shillings) the wines were not even moderately good. We paid one silver rouble and more (therefore above three shillings) for wines of a somewhat better quality.

“The cultivation of the vine is a favourite occupation of different families resident here, and an enormous expense to the state, no less than to private individuals. About four hundred different kinds of vine are cultivated in this spot. The whole of Europe, as far as Lisbon, Madeira, South Africa, Asia from Tiflis to Shiraz, and even North America, were placed under contribution in order to supply the best among their vines for the southern coast of the Crimea. No expense has been spared to obtain a celebrated vine, even from the remotest corner of the globe. But these varieties all more or less lose their peculiar merits on the Crimean soil, and retain nothing but the name. I thought that I recognized the foliage of the early Würzburger, the Rhenish Riessling, the Traminer of the Palatinate, and the favourite Bordeaux, &c., but not the grapes, and still less the wine prepared from them. Two American kinds, known in Germany by the names of Catawba and Isabella, and there chiefly cultivated for their beautiful foliage, had also remained unchanged, both in form and flavour, at least so it appeared to me, compared with ours of the same sort in Germany; but whether they differ from those in North America is another question. In tasting the grapes, I observed that in all the Crimean vines, with but few exceptions, they have a thicker and more astringent skin.

“Mr. von Hartwiss gave us an opportunity of becoming better acquainted with the different kinds of wine prepared in the Crimea. I am not myself a sufficient connoisseur to pronounce judgment, but, in the opinion of those who are experienced in such matters, the profit is not in the least proportionate to what is expended. I have had occasion to speak before of the high price of the Crimean wine. In Odessa, by-the-by, a free port, and admitting foreign wines with a very moderate duty,

good Crimean Bordeaux always costs more than equally good genuine French wine of the same sort. On this account it is only ordinary and inferior kinds that are exported there, though they have also proportionately high prices; and the best vines are only drunk in families where the vine is cultivated on their own estates, or by those who place them on their table from patriotic motives.

“The Crimean Rhine wine had lost its aroma with its acid, and, in like manner, I missed the astringent taste of the Bordeaux. On the other hand, such excellent wines were presented to me in Nikita, and still more in Magarach, by Prince F. B. Galitzin, that they would have met with approval from the most experienced wine-drinkers. We were, however, told that the preparation of this quality of wine demands such extreme care, that it is impossible to trade in it, for it would either be given away at enormous loss, or would have immense prices attached to it.”—(*Koch’s Odessa and the Crimea.*)

ARTICLES OF PEACE BETWEEN THE FLOWER-GARDENER AND FLORIST— DIELYTRA SPECTABILIS SEEDLINGS.

No matter how the weather may turn out at the time, every gardener must look out for and collect certain and uncertain things to make a compost with a long time before that compost is needed; and that is the only point, as far as I can recollect, upon which the different branches of the craft agree by common consent. Whether they act on the agreement is another question. Some do, and some do not, and some forget occasionally to do as they would. On all other points in gardening we are Russians, or Turks, or downright Charlists. Whigs and Tories may agree, and so may Alexander and the Allies; but on the points of the Gardener’s garter, or charter,—which you will,—I fear we shall never agree.

No matter into how good society we gain admission, what patronage we receive, or what future prospects may hold forth, all our branches, unfortunately, the fancy ones in particular, only represent so many Alton Lockes, who must, as of necessity, turn back upon our “points” and “properties;” each party insisting on each point to the last farthing or farthing’s worth, through thick and thin skins and “middlings,” thus allowing reason and reserve to be off to the “peace preliminaries.” But no two branches of the old tree are more opposed, on principle and in practice, than those represented by the florist and flower-gardener. The latter holds out, as the best points or properties in a flower, that it should be of the most brilliant colour, that that colour could not be washed out by rain, or bleached out by rain and sun—a fast colour, in fact; these are the prime points with the flower-gardener, and all other points are lower down on the scale of excellence. With the florist, on the contrary, the shape of the flower takes the first turn, and, compared with the shape, colour is a mere nothing; a foxy-brown is just as good as crimson or scarlet, as we have seen lately among Chrysanthemums and Pompones; and as for the brown-foxy being a fast colour, that is the last thing which troubles the florist, or that he thinks about; and then he screens the flower from sun and rain with this or that shade, or tent, till all is over. The crimson may turn scarlet, the scarlet to crimson, and both be as “fast” as a rock in the flower-garden, and yet the plant be useless, or next to useless, for the short time it holds in bloom. Duration must, therefore, be the next best point in a flower-garden plant—not a bit of it; substance is our fourth point; it is also an essential point with the florist; and we both agree in having substance in the petals, and substance in the footstalks, to hold up

the petals as firmly as the colour is fast. Duration! Why a flower may be an everlasting, and be of no use to the flower-gardener; and yet, a flower that endures but for a season is his delight. Hence a compromise is made between substance and duration.

These are the only five points in our charter generally; but there are those still who insist on a sixth point, which includes the habit or growth of the plant—a point of very great convenience, certainly, but not absolute like the five points. There is an absolute demand in all good gardens for each of those five points by those who pay the piper, for they consider those points essential to a good flower-garden. High colours first, warm colours next, and then clear, clean tints and shades, but not a word about the shape of a flower, or the outline of a petal, for neither of them could heighten or diminish the beauty of a flower-bed. A fringed petal may be better than a “rose-leaf” petal; and an oval flower, or a flower in the shape of a French horn, may be far more suitable for a bed than a round one. Every point in the flower-garden is founded on strict usefulness; but are not those of the florist just as much so as those of the other? No, they are not; the most essential point in the florist's flower is shape, and that is not of the least use, it is merely a fancy; but he strives for it, he pays for it; it is his hobby, and he has a right to it as he pleases; and if he had stopped there, within his own prescribed boundary, he had done well, but that he did not do. He runs me and my flowers, Russian-like, from every safe harbour and anchorage within his own dominions; and not only that, but turns up his nose, and threatens all my pets and seedlings within my own fenced kingdom, unless they turn round and do as he wishes, whether I wish it or not. A pretty pass, indeed. But who will play the Austria between us? Has the weaker party no friend to settle matters between us? I have no wish to take any undue advantage of my strong position in the flower-garden of England against a low Dutch degree of civilisation of a former age, for I can well afford to be generous, by virtue of my calling, and I wish to be so with all my heart. I would “give in” two or three of my secondary points for one point, which the florist does not consider essential to any one of his flowers at all; but highly so to the system of which he forms a part and parcel; and that point is the systematic point of sneering at every one of the flower-garden seedlings, although no one out of his own circle sympathises with him. Let the florist, henceforth, give up this one point; yea, let all of us be more charitable, and look upon each other's fancies as good enough, and as fulfilling the different ends for which we labour for them, and peace shall be proclaimed upon the basis of all the points for which we now jostle each other and all who cross our paths.

I had been led into these points on reading Mr. Brent's letter on the Pigeon fancy, at page 285, the best and most sensible letter I ever read on the subject of judging fancy articles, whether dead, or alive, or growing. He laid the points so pointedly in that letter, that I really thought the saddle suited the flower-gardener as much as any of us. I relented on the spot, do hereby give in at once, and never more shall this pen rail or rattle over a round flower or a smooth-edged petal.

The flower-gardener's new year begins on the 1st of February, the best time to turn over a new leaf, to forget what is past, and to make up for what has been amiss, by a more diligent use of all new plants and seedlings which may happen to fall in with the notions of either party. The first seedlings of this year, with me, are just pushing up the soil in a double pot, one pot within another. They are from the seeds of *Dielytra spectabilis*, which were sent me last summer. I sowed them as soon as I received them, and kept them under glass for a month, to see if they would start or could be forced to

grow at once, and contrary to what I well knew was natural to them. In that, however, I did wrong; they should not have been sown until the first week in October, or, at least, until so late in the autumn that the summer heat of the surface-soil was considerably lowered. At the end of the first month of in-door treatment I turned out my seed pot, and plunged it just to the rim, and no more, in the open border, and turned another pot over it, to keep off birds and mice, heavy rains and too much sunshine. I never allowed it to become dry, nor did I give it much water; and after the October rains the ground was wet enough without watering a pot plunged and kept dark with the over pot. About the beginning of December I took it up and gave it a cold pit treatment, and by the 20th of January every one of the seeds vegetated. A similar treatment, very nearly, had the very same effect with me this time last year: two seedlings were up when the long frost came, the rest which were following were, no doubt, touched by the frost, or alternate frost and extreme dryness, so that between the two I lost them without ever seeing them; and I also lost one of the two seedlings, but the other made a fine plant, which will bloom next spring; besides that one and the present batch of seedlings, I had three strong plants, from the growth of 1854, sent me by a Reverend gentleman, down near Yarmouth, so that if I cannot prove or disprove the notion about the shyness of the plant to seed being caused by ages of propagation, in China, by division of the roots, it will not be for want of materials, and I would recommend that same subject to the notice of the florist. Has he not, like the Chinaman, run out some of his “roots” by over propagation, by forcing and parting them with too great a hurry? How else is it to be accounted for, that the premier seedling of one year is hardly worth planting three years hence?

But let me keep to the text till I finish what I want to say about the *Dielytra* while it is fresh on my memory. Suppose it to become a subject for cross seedlings; and suppose, also, the florist and the flower-gardener to be running a race about who shall be first able to bring the seedlings to market; I am persuaded there is a system by which one party can “prove it” twelve months before the other, on the supposition that one of them acts on the safe system, while the other risks his chance on superior skill and good conveniences for exerting his superiority.

The safe system is to gather the seeds, and lay them by in the pods till the beginning or middle of October; then to sow them; for if they are kept till the spring, the chances are that twelve months more will elapse before they can be proved; to put the pots at once into a cold frame, and to keep the earth in them between wet and dry all the winter. By that process the seedlings will appear in March, and do well; whereas, by following the plan I tried, twice running, the seedlings will be sure and certain to rise too soon for the convenience and skill of nine-tenths of those who may be trying their luck in the race. I have seen the day when a batch of the most tender seedlings coming to hand in the dead of the winter would have been welcomed rather as a proof-prize than a difficulty; but now, I am not quite free from apprehension for their sake; because I want the necessary convenience of a comfortable stove to watch and nurse them in for a couple of months. But say that a young, ardent spirit is bent on “making a spoon, or spoiling a horn” with the experiment, he will sow the seeds the moment they are ripe, or, rather, ten days before they are quite so; he plunges the pot in heat at once, and keeps it in continued forcing through the autumn, and by the end of the fourth month he will be looking for the seedlings to rise, and if they come before the end of November, it is all but certain that he will be able to prove them before the end of May

following; for stove-heat is not at all inimical to these seedlings during the first stages of their progress, and thus twelve months are gained over the safer plan of growing them the first year from October sowings, and proving them the next.

Another side of the question may be more useful still. This is the first instance, during my practice, in which a seed, whose nature it is to lie dormant in the ground from the time of ripening till next spring, departed from that rule, with very little, I may say, with comparatively no artificial help, and such departure may be reasonably depended on, from the uniformity of the two years' result in my own case. Then, are we sure that all kinds of seeds, for which we claim this long period of dormancy, between sowing and sprouting, really require so much time to come up? Is it not more probable, that if we were to vary routine and red tape, we might get many such seeds to depart from the more natural course, and gain time and patience by the experiment? At all events, the thing is well worth a fair trial, and to none is the issue more likely to bring grist to the mill than to the fair and honest-dealing florist.

D. BEATON.

RUSSIAN GARDENER IN THE CRIMEA.—"M. von Hübner had an orchard, which he had planned six years before my visit, and which evidently now was in a most flourishing condition. His labourers consisted of one Russian and of several Tartars. The first led such a peculiar life that it deserves to be related. While we in Germany hire our servants, or make similar engagements, for the term of a quarter of a year, in Russia the term is a V'tret, that is to say, four months, or the third part of a year. M. von Hübner's Russian gardener was usually extremely industrious during these four months, living with the utmost economy, scarcely drinking as much as a "vodka" (dram) in the day. His whole subsistence was bread, and a poor "shtshi" (hodge-podge) or "borshtsh" (cabbage-broth). But as soon as the third part of the year had expired, the work no longer prospered. He begged for his wages, which in the summer season amounted to more than seven guineas, and quitted with that sum. The smartest carriage, drawn by a couple of horses (the peasant is not permitted to drive with more), was immediately engaged for several days, along with a servant, and he then started on a drive with his mistress, or some good friend, who, under such circumstances, was never wanting. At first, all passed off in the best manner imaginable; the labourer, playing "le grand seigneur," treated his mistress and friend to the most costly dishes, in which onions never failed to form an ingredient, and to the most delicate wines, champagne taking the lead. As night drew on, and the number of his friends increased, matters became more uproarious, about midnight he usually became intoxicated, and the festivities of that evening were terminated. The following morning, when he had slept it off, the same life recommenced, and continued till the hour arrived when he again became unconscious. Thus he proceeded as long as he had a copek in his pocket; but at length, having spent all his money, he once more appeared at the appointed hour at the orchard, went as usual to his work, and was as diligent as before."—(*Koch's Odessa and the Crimea*.)

PLANTS THAT MAY BE IN BLOOM IN JANUARY.

(Continued from page 293.)

GOLDFUSSIA ANISOPHYLLA.—A compact plant, covered with grey flowers, used to be a *Ruellia*. Prune freely

when done flowering, encourage a profusion of young shoots, harden these in autumn, and when extra heat is applied it will bloom. It will be safe at 45°; requires about 60° to bloom; and seldom gets above eighteen inches in height. Ripen the young shoots, and there can be no lack of flowers. It keeps in flower long in a warm greenhouse.

JUSTICIA COCCINEA and **FORMOSA**; the first scarlet, and the second a greyish-blue, produced on long flower-stalks, the flowers nestled on it all the way up. When done flowering cut all of these clean back, and grow on for next year.

JASMINUM UNDULATUM.—This will be very sweet if kept in stove heat at present.

OLDENLANDIA.—This is a neat little plant, seldom above nine inches in height, and always smothered with small, white flowers. To have it extra full of flowers at this season, it should be well pruned back in July, and that would prevent it flowering much before winter.

SPERMADICTION AZUREUM.—Might almost be called the winter *Ceanothus*, producing its grey-blue, small flowers in great abundance, along and at the points of the shoots of the previous summer. When done flowering, and rested a little, prune back to the lowest buds, and from these will come the shoots for the succeeding year. After June, a cold pit will be the place for it, housing in October.

ZYGOPETALUM CRINITUM, **MACKAYI**, &c.—These are ground Orchids, just as easily grown as any other stove herbaceous plant; flourishing in peat and loam, and propagated by division, when fresh growth is proceeding after flowering. The routine of the stove will just suit them. Keep them rather dry in autumn, and give all the light possible; they will bloom freely in a temperature from 55° to 60°.

CARNATIONS PERPETUAL.—These require no forcing, the greenhouse is quite sufficient. The best plan to manage them is as follows:—Propagate them about August; keep the plants under glass all winter; plant them out in April; nip out their centres in June; water well in dry weather; secure from winds; raise and pot in the beginning of September, and house before the end of October.

ERICA.—Those mentioned treat as *Epaeris*; but they must not be kept either so close or so warm when pruned back after flowering, but yet sufficiently so to promote young growth; the maturing of that growth in August and September, by sun and exposure, is the essential for a profusion of flowers.

CINERARIAS.—Of these we have often given the treatment. Plants, from seed sown in May; divisions and suckers, in August and September, from plants finished flowering in June, and planted out. When potted, they should be kept cool and moist, and removed to a place where fire-heat can be given before frost. For later flowering, frost must be excluded and damp, and the plants will do well.

CYCLAMEN PERSICUM, and others, for early flowering. Give plenty of water as long as the flowers last and the foliage is healthy. About May curtail watering; as the foliage dies refrain altogether, and let the tuber be dry. About September repot, keeping the tuber mostly above the soil. Give a little water close to it, but do not saturate the soil until the roots are freely progressing. The leaves and flowers will soon show, and the plant must not be dry afterwards, until the blooming is over, and the foliage decayed.

GERANIUMS.—In addition to those mentioned, such small-flowering kinds as *Windsor Scarlet* and *Shrubland Pet* bloom well at this season, when kept in little pot-room.

JASMINUM NUDIFLORUM.—This does well against a wall; but a good-sized plant presents a fine yellow mass in a greenhouse. It has no scent. When done flower-

ing, prune back and encourage young shoots for the next year.

LACHANALIA TRICOLOR, &c.—These little plants bloom well at this season, if, after early potting in autumn, they are placed in a forcing-pit in December. When done flowering, and the foliage decayed, they should be taken out of the pots, or kept dry in them, until the autumn.

OXALIS MARGINATA, *SANGUINEUM*, &c., do well under similar treatment, but require little or no forcing. These are beautiful little things for the front of a shelf. When the foliage decays, turn the pots on their sides to keep them dry.

PITTOSPORUM TOBIRA and *UNDULATA*.—The first a low, evergreen shrub, with whitish, small flowers; the second more upright and vigorous in its growth, and both interesting for the sweetness of the flowers. Require common treatment in winter, and may stand out-of-doors all the summer.

SCILLA BREVIFOLIA.—A pretty, pinkish flower, a few inches in height, requiring treatment similar to *Oxalis*, above.

SPARAXIS TRICOLOR.—Similar treatment, in peat and loam.

The forcing of Shrubs is most successfully managed when the pots are full of roots from early potting, and these roots receive the advantage of a mild bottom-heat before a higher temperature affects the buds. For hardy shrubs, the plunging the pots in a mild, growing heat, out-of-doors, as in a heap of leaves, for a month before placing them in the forcing pit, is a good preparation. Chinese Roses will bloom in the greenhouse without forcing. Teas, Perpetuals, &c., are best treated as above.

MUSK (*Mimulus moschatus*).—When this is grown early one year, and the pots are kept after the tops have died down, it will come early again. A very little forcing and warm water will do. Some of our window-gardeners are sadly perplexed with this plant. The top decays, and the pot and its contents are consigned to the dust-heap as useless. Were the pots kept just dryish instead of wet, and watered next spring, one pot, after the roots had sprung, would furnish enough for half-a-dozen pots.

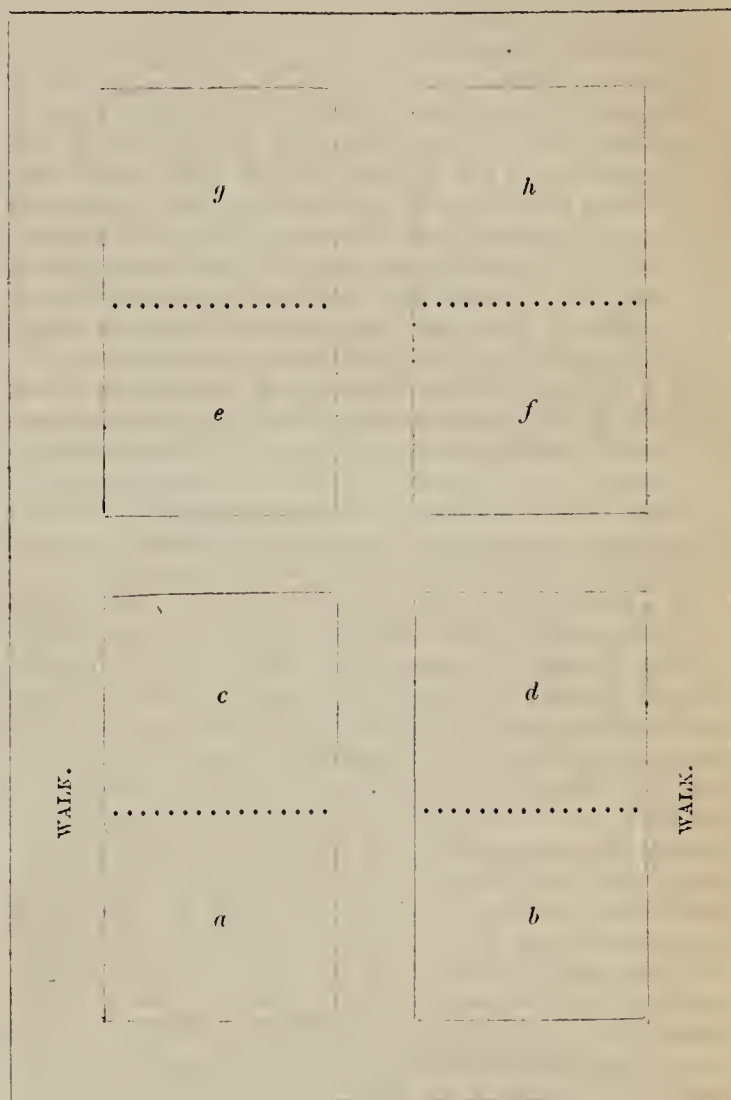
LILY OF THE VALLEY.—Secure plants in pots with prominent buds, and well-rooted; and plunging the pots in a sweet, mild bottom-heat, in a forcing-pit, is the most successful mode for obtaining these sweet flowers now. As soon as they appear, move the pots to a sunny, airy position.

R. FISH.

GARDENING FOR THE MANY.—FEBRUARY.

GENERAL REMARKS.—The cheering influence of spring coming on gives more or less energy to all concerned in the great work of "tilling the ground," the more enthusiastic portion striving to meet, if not forestall, the coming season; while the more apathetic lag behind, and are content to follow in the wake. This unenviable class is assuredly becoming fewer, and each succeeding season will, we hope, diminish their numbers; for, certainly, there can be no nobler pursuit than to place some of the most useful productions of Nature in a way to perfect themselves, which is done by simply committing the seed to the earth at the proper time, and in the proper way, giving the proper attention to it afterwards, so that a becoming result may be ensured; and this and the ensuing months being the time when much that is useful that way ought to be done, the horticulturist must be up and doing. The days lengthening give increased opportunities to hasten on the works, and other matters being also favourable, no time must be lost in finishing any extra jobs begun during the winter; while the planting of deciduous trees and shrubs ought to be brought

to a close, gravel-walks well rolled after frosts are over, Box and other edgings having previously been put to rights, and, in fact, everything done now that can be done to expedite the usual work of the after months, which of themselves afford plenty of employment that cannot be put off.



a.—Remove any covering that may have been over the *British Queen Strawberries*, but do not clear away the old half-decayed leaves yet, as they will be serviceable for a month longer. Look over the beds, and see that mice do not harbour there; if so, trap them or dig them out, and kill them, as they are more easily caught now than afterwards. *Raspberries* may be tied up, but do not top them until next month. Do not reserve too many canes, as the more thin they are the finer the fruit.

b.—If *Potatoes* were planted here last month, little is wanted until they show themselves in April, when, perhaps, a slight covering for a week or two will be necessary at nights. A space being left for *Cauliflower*, the end of the month is quite soon enough to plant them; but March will be better. In the meantime, dig the ground over on frosty mornings, and make all ready for the after-work fast coming on.

c.—Successive portions of *Sea-kale* may be covered up with leaves or dung, after placing a pot or box over the plant; and as the progress now is more rapid than it will be afterwards, it need not be covered in more than from twenty to twenty five days before it is wanted; this is supposing the dung or leaves to heat moderately. When any old portion is done bearing, remove the pots and dung, leaving, however, some to cover up the plant; the dung or leaves, if warm, will do again. *Rhubarb* may be served in the same way; only when this

once does begin to bear it continues longer than Sea-kale, but it is more tardy to start. *Asparagus* beds being done up in the autumn require nothing further yet. Next month the soil may be broken on the beds, so as to allow the heads to get through without difficulty.

- d.—This being for *Onions* and *Radishes*, the ground must be got into good order by being dug slightly over some frosty morning early in the month; after which it will need no more until sowing time, which must be done in dry weather, if possible, any time before the 20th of March; but the end of this month will do if the ground will work well. Drills, a foot apart, are best on all ground but the very stiffest loam or clay, which had better be in beds three-feet-and-a-half wide, with eighteen-inch alleys, and the seed sown broadcast. A sprinkling of *Salmon Radishes* with the *Onions* will do no harm, and they will come in useful.
- e.—This being for *Peas*, a crop of *Surprise* or *Champion* might be put in some time this month, to succeed the *Emperor*, sown before. If there be any *Brocoli* or other crops wanting to be removed, let that now be done—I mean *Brocoli* that has been all cut, or nearly so—and let the ground be dug as long before the time it is wanted as possible.
- f.—This being destined for *Dwarf Kidney* and *Scarlet Runner Beans*, but little can be done now, unless the ground be vacant, when digging, as above, will be serviceable to dispel slugs and other garden enemies, who do not like their homesteads so rudely torn up in cold, frosty weather.
- g.—If this is intended for *Carrots*, and other root crops, care must be taken to expose as much of the surface as possible to frost to kill the larva of insects, which abound most after the Cabbage tribe. Digging, as above, will assist much, taking care that the last digging is at least three weeks or a month before sowing-time, which need not be before April. *Broad Beans* may be sown here, if wanted; rows at least two-feet-and-a-half apart will do, and the seed about four or five inches apart.
- h.—If there should be a batch of *Early Cabbage plants* here, it would be well to look over them on a dry afternoon, and close in the holes around their necks caused by the winds and frost. *Winter Turnips* ought to be taken up before they grow much, and their roots partially cut—they might be placed singly on the ground in some cool place—and the ground, being well manured, must be dug ready for other crops, which, at this season, succeed each other fast on the same ground.

KITCHEN-GARDEN BORDERS.—Towards the end of the month, if the weather be mild, seeds of different things may be sown, as *Savoy*s, *Brussels Sprouts*, all the kinds of *Greens*, a little *Cauliflower* and *Lettuce*, and, at the same time, *Radishes*; while the *Peach* and *Nectarine* trees may be pruned and nailed, and the ground digged ready for any crop that is wanted. A few early *Potatoes* may be planted along the side of the wall, which will come in earlier than those outside. *Lettuce* and *Endive* which have stood the winter will speedily be cleared away, and that space, too, must be prepared for future use. It is, however, too early yet to dispense with the coverings of *Cauliflowers* entirely; but they must be as much exposed as possible prior to that being done; yet a sudden exposure after, perhaps, some weeks of confinement is hurtful, and must be guarded against. See that mice do not disturb the *Peas* just coming up; and if it be very mild, slugs are equally destructive in another way. Lime, soot, and coal-ashes are preventives, and treading the earth well in around them, on dry days, is also beneficial, as closing up the harbour they retire into after doing the mischief, to be ready for another attack.

Plant out a few *Onions* if you wish to save your own seed. Good, sound bulbs that have shown little symptoms of growing are best, as there is the greater probability of the progeny keeping well.

FRAME.—Same fermenting material being preparing at the end of last month, the amateur must make friends with some neighbouring gardener, about the middle or third week of this, in order to have a pot or two of *Cucumber plants* to turn into his bed when it is made up and ready, which is very soon after it is made, if the dung be good, and well sweetened by frequent turnings during the last three weeks. An open, turfy loam, to which some leaf-mould has been added, will be found as good as any, and hills being made in the centre of each light, so that the earth is heaped up to be about ten inches or a foot high (the surface of the bed being covered over about two inches deep as well), the plants may be put in, and carefully watched for some days to see that no undue steam arises. Cover well up at night with mats, and try to maintain an internal heat of about 70°. The bed, at the same time, may be made useful in many ways. Seed-pots, or pans, of sundry annuals may be put in, and cuttings of various things as well, taking care that each cutting, before potting, is well immersed in tobacco-water to kill Green Fly or other insect. In this way, *Verbenas*, *Petunias*, *Fuchsias*, and many other things, may be multiplied to any extent, and seeing these things thrive is, to the enthusiast, a source of pleasure as well. A little air will be necessary on fine days, by tilting the back of the frame slightly; and if the heat should exceed 75°, and feel, when inhaled, to be rank, leave a tilter on at all times—about a quarter-of-an-inch will allow a great deal of air to pass. Be careful of the *Geraniums*, *Calceolarias*, &c., removed from this frame before placing it on the hotbed, and if they are compelled to occupy inferior quarters in the house, let the *Cinerarias* have most light; next to that, the *Geraniums*. *Calceolarias* may be kept as cool, and even as moist, as possible, and the other things will be all improved by presenting them to the light in turn; a day or two at a time will assist much. Take care that frost does not reach them; but give them air freely, and gradually inure them to bear it when fully exposed.

FLOWER-GARDEN.—The remarks of last month will, in a great measure, apply to this; but whensoever fine weather sets in, look round and replace anything which the frost or winds may have disturbed. It is yet too early to sow seeds, except under glass; but bulbs may be taken up and re-planted, and the like may be said of many herbaceous plants. *Heartsease*, if not planted in autumn, ought to be done now; while sometimes an interesting spring display is made by taking up quantities of the common *Primrose* out of the woods, and planting them in the flower-beds, there to remain till they have done flowering. Finish pruning *Roses*, leaving the tender *Tea* and *China* till last, and even then cut little from them.

SHRUBBERY.—Finish all work intended here as early as possible, except the cutting down of common *Laurels* expected to grow again, which may be deferred for another month; not but that the present is as good a time, but their tops may do service during that period. See that the fastenings of the different things hold good, and give a good face to the ground by slightly digging it, except where *Rhododendrons*, &c., are planted, in which case a litter-dressing of peat-earth will have the same effect.

FRUIT-TREES.—Finish the pruning and nailing of all wall-trees as speedily as possible, if not done before, except that *Peach* and *Nectarine* may be delayed for a week or so into March. Let, also, all *Gooseberry* and *Currants* be pruned forthwith, if not done before, and some soot cast around their roots, which will prevent, in a measure, caterpillars attacking them. If there be any

espalier, or other trained trees, that want tying up or removing, let that be done at once; and if any *Apple* or *Pear-tree* seems worn out and wants re-grafting, cut off its head now, and take off the scions in March; but April is soon enough to graft. A mixture of loam and horse-dung is better than the stiffest clay for that purpose, as it is less likely to crack and fall off.

ROCKERY.—The same remarks as given for the flower-garden is applicable here, presuming, at the same time, that the directions of last month were carried out. Should it be deemed advisable to remodel the whole, this is a very good time to do it, as the earlier the plants are returned to their places again the better; and a certain amount of alteration is wanted here, now and then, as certain robust plants have a tendency to overrun other things of more value, but less vigorous. In this case, some alteration is necessary, and the present is the best time to see after that work. J. ROBSON.

NEW, OR GOOD BEDDING-PLANTS.

(Continued from page 180.)

THE FUCHSIA.

It has frequently been a matter of surprise to me that the lovely, elegant, long-blooming *Fuchsia* has not been more planted in masses in the bedding-out gardens. I am sure it has every thing and property to recommend it. In the first place, it is easily kept through the winter; all that it requires is to be kept moderately dry and free from frost. It may be kept alive in a dry room; in a dark cellar; under the stage of the greenhouse; in cold pits or frames, without any covering; or even will keep alive if buried under a heap of coal-ashes. It is easily propagated; every cutting will grow if taken off very young, planted in sand, and placed in gentle heat, under a hand-glass. Then, again, it may be planted out as early as May, and will flower till frost comes. It grows dense, and flowers most profusely, producing its coral-like blossoms most constantly. Surely, all these good qualities ought to induce flower-gardeners to patronize and cultivate this charming plant more than they do. The fact, however, is that varieties are planted out that are utterly unfit for that purpose. Because a variety grown in a pot in the greenhouse produces there extraordinary flowers, it is thought fit for the flower-bed. It is then planted out and fails, flowering only for a short time. Now, to plant such large-flowering varieties not only leads to disappointment, but throws a slur upon the *Fuchsia* that it does not deserve. These ideas frequently passed through my mind when customers came in for bedding-plants, and almost invariably passed by the *Fuchsias*, because, they said, they did not flower enough. What a mistaken idea! Choose the right varieties for bedding, and no plant—no, none whatever—flowers more freely.

I have seen *Fuchsias* in the open air, with stems as thick as my wrist, and higher than any man I ever saw, as full of flowers as ever you saw an Oak-tree full of leaves; and I did not travel into their native country, the mountains of Chili, to meet with such splendid specimens. No; I only crossed the sea from Fleetwood, in Lancashire, to Belfast, in Ireland. There, in a garden at Hollywood, I saw *Fuchsia coccinea*, *F. conica*, *F. fulgens*, and *F. macrostemon*, of immense size, growing in the open air constantly. It is true that locality is near the sea, and, consequently, the frosts are neither severe nor lasting; but that says nothing; such plants could be kept alive in any cultivated part of Great Britain with such protection as I have mentioned above.

In the warmer parts of Britain the *Fuchsia* will live out constantly, though in severe winters it will gene-

rally be cut down to the ground; therefore I would recommend them always to be taken up and stowed away, in preference to leaving them in the ground; and for these reasons—they are not sure to survive a very hard frost. If they do, they form such rank bushes, that they are far from being handsome, and, beside that, they do not all grow alike. Whereas, if they are taken up and stowed away, the ground or beds may be well trenched; the soil renewed, if necessary, and the plants put out in such positions, according to their strength, that the tallest and strongest will be in the centre of the bed, and the weakest at the sides, so that they will form a kind of amphitheatre of flowers when in bloom, and every plant will be seen. So grown, no plants require less care. They grow thick enough to choke up all weeds. The foliage shades the ground, so that the sun has no power to dry up or parch the land, and they require no water, and are less subject to be preyed upon by insects than any plant I know. With these hints and praises, which, I trust, will induce many to try *Fuchsias* on a larger scale than they have done, I now proceed to give my list of such kinds as I know will answer for bedding purposes.

FUCHSIA COCCINEA.—This is the first *Fuchsia* that was introduced into Great Britain. It has small leaves, and rather small flowers; is very hardy, and blooms profusely.

F. CONICA.—I fear this species is almost out of cultivation. I know none so fitting to form standards, because it has such a robust, tree-like habit. Planted in the centre of a bed of *Verbenas*, or other low-growing flowers, such standards break the tame, level line, and give a graceful variety, in form, to the general aspect of the flower-garden.

F. CORALLINA.—A well-known, strong-growing variety, suitable for a large bed, or to train up to a single stem, to form a weeping tree. The stems and leaves are peculiarly handsome.

F. GLOBOSA.—I do like this good old *Fuchsia* with its scarlet globes. It is peculiarly suitable for bedding; flowering freely, even when not more than four inches high; hence, it is a proper sort for smallish beds.

F. FULGENS.—This is one of the large-leaved species, with long, ear-ring-like drops of flowers, produced in heads at the ends of the shoots. Grown three or four feet high, with woody stems; kept alive for years in some back shed, or under the greenhouse stage, and planted out in spring. I know no plant more showy through July, August, and September.

F. GRACILIS.—A rather tall, slender-growing species, but a most abundant bloomer, with elegant, long-tubed flowers. Very attractive for a long season.

F. MICROPHYLLA.—The most dwarf of all *Fuchsias*, with beautiful stems, leaves and flowers. It is a little gem for a small bed; but requires the greenhouse in winter.

F. RICARTONII.—This is, without doubt, the hardiest of all the genus, and, as it has small leaves, it shows off its blooms most perfectly. It is the most proper of all for bedding, though it will, if the soil is too rich, grow to a large size.

T. APPLEBY.

(To be continued.)

PLANTING FRUIT AND OTHER TREES.

THERE are few points in gardening on which a greater diversity of opinion exists than on the management of fruit-trees: their planting, attention to pruning and cultivation, being points so important to the welfare of the object in view, and the circumstances so different in which each are placed, that it is no wonder if a considerable difference be made by the various parties, all desirous of success. And when we take into considera-

tion the fact, that fruit-trees are often obliged to be planted in situations at variance with their general well-being, we may fairly conclude that some considerable difference in their after-treatment must be made to compensate for the altered circumstances of their condition.

In using the word "obliged," I allude to the innumerable instances in which the owners or occupiers of small plots of ground will introduce the greatest possible variety into their premises, where it is very possible that the soil and situation may be only favourable to one of the species, or, perhaps, to none at all. This is often the case, and some artificial means or other are made use of to compensate for the absence of these two all-important agents. It is impossible fully to accomplish this; but much may be done to improve the circumstances under which the different fruits are grown. An improper soil may be improved by adding the right ingredients; and though climate and situation are both beyond controul, a judicious selection of varieties, with proper pruning, &c., will, in a great measure, assist in restoring the balance. But as these general observations have been before referred to in *THE COTTAGE GARDENER*, it is needless repeating it further now; but to call attention to a few points in the planting of fruit-trees in general.

In the first place, it is advisable to select the trees to be planted from among those called, in technical language, "Maiden trees," being those which have never been cut down; but as this cannot always be done, those trees which have only undergone that operation once are better than those which have been subjected to much pruning; for successive amputations of a wholesale kind have a tendency to encourage suckers to arise from the root, as well as from the stem below the graft, or bud, to the great injury of the plant. This point being attended to, the next care is to take up the plant with all its roots uninjured. This matter cannot be too strongly insisted on; for it too frequently happens that the roots of such things are very carelessly handled, and being cut and curtailed to a very great extent, it is not to be wondered at if they do not succeed well. In fact, when we reflect that it is the small, fibrous roots which furnish the food the tree lives upon, we need not wonder if it should refuse to grow when divested of these. If, therefore, you have trees from a nursery, be sure to see that they are taken up with good roots, and should any root get damaged or broken in the process of taking up, or afterwards, let it be cut back to the parts unhurt; for it often happens that the injury done to a root being insufficient to kill it, the vitality of the "half-broken off part," not finding an outlet in the usual way for the juices it has been in search of, commences to make an outlet for itself, and buds are formed at the place where it is damaged, speedily pass through the soil, if not too deep, and, reaching the air, are at once suckers. This, of course, weakens the parent tree, not only by the abstraction of the root in question, but by the space it occupies, to the exclusion of other and more useful roots, besides the disagreeable appearance it presents. Now, as many of these evils trace their origin to the manner in which fruit-trees are taken up, it follows that they ought to be carefully done, and with all the roots, as far as possible, whole.

The planting is now the next duty, as it is supposed the site has been chosen, and the ground prepared. Prior, however, to putting them into the ground, the roots ought all to be looked to, and if there be any of those central, down-right roots, called "tap-roots," it is advisable to cut them clean out, as the tree is quite capable of supporting itself in an upright position without these auxiliaries. When other things are favourable—and it is very seldom that deep, strong tap-roots make good horizontal ones—their loss is of less consequence, and the planting may be at once proceeded with

as soon after the plants are taken up as possible, as lying about in packages, or other places, is nearly as bad as maltreatment to the roots; for it is, in fact, maltreatment to take them out of the ground, and expose them to the action of the atmosphere for a considerable time.

In planting trees intended to become open standards, it is good practice to place some of the best roots to the west, or whatever side the highest winds are expected from, and be sure to spread out each root to the full extent it will reach, and in such a manner that all may radiate from the centre, and, as near as possible, at even distances from each other, filling in fine earth at the time, so that there may be more tiers of roots than one, if they be numerous. When all is done, and the hole filled in, put a stake at once to the tree, if there be the least danger of its shaking about in the wind, and the job is finished, unless some protection against hares and rabbits is necessary; if so, it is better to trust to some furze covering than any wash, unless the appearance of the former is objectionable. However, if any danger is apprehended that way, it is advisable to guard against it at once, for these marauders seem to take a pleasure in following in the wake of alterations or planting, and often enough give the finishing touch to valuable things.

Observe, in the above hasty description of planting, I ought to have said that the hole made to receive the tree should be large enough for the roots to be spread about without their ends turning upwards, or out of the line; it should, also, be level at the bottom, unless, in certain cases, where the nature of the root rendered it advisable to be otherwise. A little fine earth ought, also, to be under each root, as well as over it; and if this fine earth was from the fine surface-soil which had been exposed some time to the air, so much the better. Watering is rarely necessary, unless late in spring; and even then, it is only advisable to give a little over the roots when spread out, and not to saturate the soil above them, as the after-trampling in the tying up the tree, &c., would work up newly-watered ground into a mortar-like substance; the very reverse to what is relished by vegetation.

We now come to the point in which I have no hesitation in saying a serious error exists, and that is the pruning, or cutting down of the tree at the time of planting. This practice used to be all but universal; and in many districts is nearly so now. But a better knowledge of the laws which governed horticulture, confirmed by experience, has taught us, that a too severe amputation of the top at the same time the roots are undergoing a change is like inflicting two severe wounds on the same patient at once, and, consequently, in some cases, more than the said patient can bear. I well know a case where a party planted a piece of ground with standard Apple and Pear trees, and, after tying them carefully up to stakes, cut back their heads to one or two inches; the result was that several died, while some others began to shoot out below the graft; and those which did survive made poor, sickly shoots, of no use whatever for the next year. This planter acted in direct variance to the advice given him, and thus paid for his folly. The better plan in planting such trees, is to leave mostly all the top on entire the first year, and the next one to cut down what may be deemed necessary to secure the proper form of growth, &c. It is true, you will then have to cut into the two-year-old wood, but that makes no difference, as that will bear the knife as well as the younger, and the shoots from that will be satisfactory.

I may observe, that the system of planting out trees of all kinds, without cutting them down for one year, is very prevalent here. Young Chesnut trees, from four to six feet high, are planted out, and sometimes they are

allowed two years' growth before they are cut down, the after-growth being for hop-poles, faggots, and ordinary copse-wood purposes. Quickset hedges are treated the same, which is a wide departure from the usual practice; but experience has proved it to be the best plan; and few districts present better specimens of Quick hedges than this; for they are to be found of all sizes, from three feet high to upwards of thirty, and clipped both sides too. In fact, I could point out some hedges almost impenetrable; but as this is foreign to the subject of planting, I will conclude by urging on the inexperienced planter the propriety of seeing the trees he intends to plant carefully taken up, and to plant them as above directed as soon after as possible, taking care, at the same time, not to cut them down until another season, and the one following that he will be rewarded by the fine growth they will make, and the general appearance of health they present; other things, of course, being likewise favourable. J. ROBSON.

THE APIARIAN'S CALENDAR.—FEBRUARY.

By J. H. Payne, Esq., Author of "The Bee-Keeper's Guide," &c.

NOTHING whatever can be done with our bees until the frost breaks up, and then no time must be lost in seizing upon the first dry day for cleaning the floor-boards, and, where damp, replacing them with dry ones; giving barley-sugar where required; and seeing that they are well defended against wet.

ENEMIES.—The chief enemies to guard against at this time are mice and birds; cold, if the floor-boards and hives are dry, affects them but little.

HIVES OF COMB.—Hives, in which swarms of the year have died, should be kept dry and clean, and out of the way of mice, for the purpose of hiving swarms into them. The time this precaution saves a swarm can scarcely be credited.

POLLEN.—By the end of the month the bees may be seen conveying in pollen of an ash colour, which is collected from the Elms, and which, I believe, is the first plant they gather from.

PEDESTALS.—Where the stocks are placed upon pedestals of wood it will be well to look to them, for I have lately heard of some sad disasters arising from the want of this little attention. It is about an inch below the surface of the ground that the mischief takes place, and when once begun, goes on rapidly, except good oak has been used.

ARRANGEMENT OF MIXED FLOWER BORDERS

"WHAT is 'Upwards and Onwards' doing now? Has he never seen an improvement on the old method of planting a mixed border?"

"Upwards and Onwards" is in London, at present, busy, very busy; and he only became aware of the above inquiry of Mr. Beaton's on his calling at the office of THE COTTAGE GARDENER, a few days since, for the following reason:—A damsel in the country, who has the charge of forwarding my letters and papers, after for sometime directing them on to their proper designation in Sloane Street, suddenly—after the manner of damsels, I suppose—changed her mind, and took a fancy to a new number! A letter thus wrongly directed by chance found me out, which gave me a clue to what was going on; but THE COTTAGE GARDENER so sent remains to this day *non est*. I made a stir for it at No. 6, (the new number,) but to no purpose. Now, as I am always anxious to see THE COTTAGE GARDENER, and also that the members of the Institute to which I belong should avail themselves of its reading, there was nothing left for me but to call at the office, procure a fresh copy, devour its contents, and then forward it on to Woodstock.

Luckily for Mr. Beaton's inquiry, I *do* remember having seen, two years ago, an instance which I thought a step in the right direction towards an improvement on the old

mixed style of planting a flower-border. It was at Cokerthorpe, the seat of W. Strickland, Esq., near Witney, Oxon: time, the beginning of July. I write from memory, and trust I shall do justice in transferring the arrangement to paper.

The plants were situated longitudinally in rows, in a border, perhaps one hundred and fifty yards long, as follows:—No. 1, the first row, next to the turf edging of the gravel walk, *Gilia tricolor*. 2. *Mignonette*. 3. *Hepaticas*, alternating with *Collinsia bicolor*. 4. *Violets*, alternating with *Polyanthus*. 5. *White Pinks*, with various annuals. 6. *Convolvulus minor* with *Dwarf Blue Larkspurs*. 7. *Dwarf Roses* (Perpetuals, &c.). 8. *Sweet Williams*. 9. *Dwarf Michaelmas Daisies*. 10. *Canterbury Bells*, alternating with *Forget-me-nots*. 11. *Rockets*. 12. *Irises*. 13. *Fuchsias*. 14. *Scarlet Lychnis*. 15. *Standard Roses* (Perpetuals, &c.). 16. Tall Herbaceous *Irises*. 17. *Sweet Peas*. 18. *Chrysanthemums*. 19. *Dahlias*. 20. Tall *Michaelmas Daisies*. 21. *Hollyhocks*. 22. *Pears and Cherries*, trained against the garden-wall, having a fair show of fruit upon them into the bargain.

Thus, the border usually devoted to a vegetable slip, from its near proximity to the pleasure-ground, is made to become extremely ornamental, and subservient to the carrying out a very happy idea. It is screened from the lawn by trees and a mixed variety of evergreen and deciduous shrubs; so that visitors little suspect what is in store for them till they enter the retired promenade, which invitingly leads to a rustic summer-house, situated at the farthest end of the walk, which is skirted on one side by a belt of turf and the evergreens above mentioned, and opposed on the other by a blaze of flowers, rising row above row, as flowers always should do in a border; and when this system comes to be well understood, as regards a continuation of bloom, with a proper disposal of colour, I believe it will be a much greater boon for the many than the colour-and-shade achievements which are now obtained by the scientific, though much more expensive, method of the bedding-out system.

In the arrangement I have pointed out, I felt at once, when I saw it, a sensible want of the beautiful *White* and *Orange Lilies*, and their order; also, the four desirable shadings and perfume embodied in the unequalled colour and scent of the *Double Wallflowers*,—the Yellow and the Gold, the Dark Bloody Warrior, and the other sort darker than that; and, again, the never-to-be-dispensed-with *Scarlet Geraniums*: in fact, a great many more wants, all of which will soon come to be known. The ship is afloat; I have assisted to pull a rope; and I shall ever be glad to do so when I can serve a tack; but allow me to suggest, that Mr. Beaton himself shall become the "star" to pilot us on scientifically in these waters. For my own part, were I to make an attempt at starring it, I fear a result might follow for myself analogous to that of the second performer in the following anecdote:—

On the night that Drury-Lane Theatre was last burnt down, the late Hon. General St. John was staying at his town residence in Arlington Street. On that eventful evening the housekeeper had written the neatest *billet-doux* imaginable to her intended; but, ere she had time to fold the precious document, she was suddenly called upon to attend some household affair or other. It so happened, that a pet monkey, perched upon the uppermost part of the door entering the apartment, had been watching the ardent circumvolutions of her pen with the nicest appreciation. Of course, such an opportunity of trying his hand was not to be lost; so *presto*, with pen and ink, he had scrawled and blotted over the loving achievement as only a monkey could, to the no small amusement and gratification of some of the juvenile branches of the General's family then and there assembled. As the step of the housekeeper was heard returning, the second performer—who would write, and couldn't—not to be caught in the act, quickly reinstated himself upon the door, and was soon in full mimicry of the estimable lady, with rage accusing the juveniles (who were cracking their cheeks with laughter) of what they "had been and gone and done." Let all whom this true tale and odd coincidence may concern try if they cannot perceive a moral in it.—UPWARDS AND ONWARDS.

ORCHARD-HOUSES.

I HAVE seen houses, such as those described by Mr. Ferguson, applied to many useful purposes, and with much economy. I have not a doubt, nay the reverse of one, that Mr. Rivers' Orchard-houses do all that he has ever said of them. I say nothing, at present, of the matters in dispute between these gentlemen, if I really clearly understand it, as either of them can well hold his own, and the result will prove, I believe, that we are debtors to both; but as every body should be accountable *only* for what he states, I am sure that Mr. Rivers will excuse me for saying, that I have not the most distant recollection of *recommending*, at any time or place, "artist-like boxes with moveable sides, castors, &c., at 30s. each," for growing Peach-trees, Fig-trees, &c., in such Orchard-houses. So far as I am concerned, the "only thing of mounting them on castors, to keep them from contact with mother earth!" is just the rearing of the mole heap for the pleasure of kicking it down. Such artist-like boxes would be as much in keeping with Orchard-houses, made of Larch poles and boards or slabs (I breathe not a word against the utility of such houses, I only wish I had one of them), as I conceive a dirty-red clay pot to be when set upon a beautiful inlaid table in a drawing-room. Except for such places, I am not aware of recommending elegant boxes or baskets of any kind; and for such purposes, I contend that elegance is as essential, as a 3s. board box was all that was wanted in an Orchard-house. See page 241, column 2.—R. FISH.

QUERIES AND ANSWERS.

GARDENING.

MIXTURE WITH URINE TO APPLY IT SOLID.

"In our trade (a dyer's) it is customary to save and collect the Urine of the house and dye-house. We have more than we use. Will you kindly inform me what is best to put with it to get the fertilising ingredients in a solid form?—J. W. C. W."

[We should employ either of earth or coal ashes seven parts and one part of Sulphate of Lime (Gypsum) in powder, and mixed together. Pour the Urine upon this mixture, and thoroughly incorporate them. Use as much of the earth and Gypsum mixture as is required to have the whole in a solid state for spreading on the land.]

MANAGEMENT OF SHRUBBY CALCEOLARIAS IN THE SPRING.

"X. Y. Z. would be glad of some information respecting the management of the shrubby Calceolarias after the 1st of March till planting out time. He thinks of planting them out in soil composed of leaf-mould and chopped moss, in a frame facing the north, so that they may lift with nice balls. Would they be safe in a frame *from that time*, without banking up the sides with turf? X. Y. Z. has 'done' them in various ways in former times, but has never been quite satisfied with any method."

[Shrubby Calceolarias may be placed in a cold frame after the 1st of March with safety. No situation will suit the matter; and they may be turned out of the pots, as you say, if you want your pots for other purposes; or the pots may be plunged in the material you speak of, or in any other, such as coal-ashes or the like. The plants sunk in the soil, in the pot, or out of the pot, are less susceptible of injury either from cold, frosty nights, or hot, sunny days. The frame should be placed in an open situation, where there is room to take the lights entirely off in favourable open weather. On the appearance of a cold, or frosty night, the frame should be closed a little earlier than common, and well covered up. If there be a chance of very severe weather, as is the case sometimes in March, or even in April, some protection should be placed round the sides of the frame, such as dry, long dung, or mouldy hay, fern, or straw. This can be placed round the frame so neatly as to be not offensive in any place. Always take advantage of a fine,

mild day, to perform such operations as replacing plants in frames; and be careful to clear away all decayed leaves or stems, and to well water any plant that needs it at the same time. Your plant is *Sedum acre*, or Common Stonecrop.

CINERARIAS FROSTED.

"I had some magnificent plants of Cinerarias. They were smothered with Green Fly. My gardener took them out, put them in an empty pit, and smoked them twice or thrice in the old-fashioned way, with a pot of tobacco. When he replaced them in the house, he said they were most flourishing and green; but the following morning the leaves hung down their heads; they looked as if they had been burnt; the edges shrivelled and blackened; and the very bloom-buds on some quite wilted. They were carried a dozen yards out of the house to the pit and back again as quick as possible. Was it frost, for the air was frosty? or was it an overdose of tobacco? for the *Dictionary* says Cinerarias will not bear much. We have cut the Cinerarias down. Is that right? Will they shoot up again and flower?—A LADY."

[To take out "magnificent" Cinerarias during that withering frost, and to smoke them with a pot in the old way, was just like jumping out of the frying-pan into the fire. Still, the frost was the chief cause of your loss. After separating the plants, and having them in a pit by themselves, the smoking might have been safely deferred till the return of mild weather. It is never a good way to smoke or sulphur plants in hard, frosty weather. Those gardeners who remember the "good old times," recollect very well how the plants were to be looked over after every hard frost, to pick off dead and dying leaves which were injured by the "husky" smell from the fumes. At that time, no one thought of double-dosing; but now, gardening is so easy that few think of these things, but clear as they go, until such lessons as killing such and such plants, in such and such ways, check the ardour alike of gardeners and amateurs, and reduce it to the level of common sense. Cutting back was the wisest thing to do with the Cinerarias; but they will never be such fine plants again, and it is a mere chance if they flower at all to your satisfaction. The only chance you have is to keep them as cool as possible, and in a pit, away from the greenhouse altogether. Common greenhouse culture will only make them skeletons; but if you keep them cool *now*, and damp in March and April, they may do much better than we think. Pray let us hear how they turn out.

Pyracantha is the second name of one of the "Mays," or Thorns, which are scientifically named *Crataegus*, under which name it is in our *Dictionary*.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

KENDAL. At Kendal, February 1st and 2nd. Sec. James Geldard.

WINDSOR POULTRY EXHIBITION. At Windsor, 4th, 5th, and 6th of June. Secs. Thos. Chamberlain, and Henry Thompson. Entries will close May 10th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

THE season of the year fast approaches when our Poultry Exhibitions will be few in numbers and far between, therefore this temporary lull offers a valuable opportunity to reconsider where improvement in the present plans connected with them is essential, and also calmly to devise such alterations in their regulations and future arrangements, as reasonably may be supposed most conducive to their permanency and success.

One very greatly neglected item in their management (during the present, or, we might say, closing season), seems to have been the manifest indifference of committees, in general, to the all-important appointment of the *Judges*, on whose dictum alone the future proprietorship of the premiums will depend. Although, undoubtedly, this subject is one deserving of much forethought and careful consideration, not a few of our managing committees have negligently allowed this vital appointment

to remain in abeyance until the whole of the remaining duties were complete and fulfilled. Nay; we could specify more than one instance, during the year 1855 (were we anxious so to do), where the Poultry were at the *selfsame moment being penned*, and a correspondence by telegraph going on, to secure the attendance, the following day, of gentlemen to award the premiums!

This has arisen, no doubt, from a misconception on the part of the managers of the Show, that either efficient Poultry Judges are much more universal than they really are, or that gentlemen of known repute could be secured to fulfil the onerous duty this office ever entails without any previous intimation whatever. That the most grievous disappointment should, in such cases, have arisen occasionally, will be apparent enough to most individuals at all conversant with *business* appointments; and we have heard committees endeavour to explain away their indifference by the acknowledgment, "they never thought there would be the slightest difficulty in obtaining Judges, and were compelled to take *what they could get*, when those they had at first applied to proved to be pre-engaged." How many difficulties, both to committees and also to exhibitors, might with certitude have been prevented, by *not* leaving to the last moment so very essential an appointment. Difficult as the task is of satisfying the generality of "disappointed exhibitors," it is always infinitely increased if such persons can prefer the charge of incompetency against those by whom the duty was at length undertaken, more especially, as on such occasions they appear nothing loth to involve the committee as being the sole cause of the disaster.

The effect of an ill-advised selection of Judges on the *future* prospects of an annual Poultry Show are too obvious to require especial mention; but we can confidently ascribe not a few failures to this cause alone. Exhibitors naturally depend on justice being done to their favourites in the awarding of prizes, therefore, if, on the one hand, inability prevents proper awards, coupled with that indecision of judgment that ever prevails in the mind of parties who undertake duties they eventually find they cannot properly fulfil, the result is certain, nor will any amount of after-care make amends for present mismanagement.

It is, then, requisite not only that the gentlemen fulfilling this office should be above the suspicion of "favouritism," but also capable of combating the very many *unforeseen* contingencies that constantly arise from fowls being badly matched, or, if in themselves excellent, from the lack of "condition" too frequent exhibition invariably entails. None but those conversant in such matters can appreciate how many vicissitudes the same pen of fowls may undergo from various causes; such as from cold, fighting, long abstinence, or still more from want of water. It must also be borne in mind, that all premiums ought to be awarded altogether irrespective of *past* successes or failures, and simply in accordance with the merits of the Poultry at the *time-being*; for, depend upon it, this is the *only* rule that will influence the minds of the visitors to the exhibition when admitted afterwards to inspect it, and they closely begin to criticise the various adjudications.

Another feature connected with the appointment of Poultry Judges that tends much to inspire general confidence, is obtaining (where practicable) parties from a *distance*. It obviates the suspicion of friendliness to neighbours, from recognition of the competing Poultry, and disarms, at the outset, those parties who, if themselves unsuccessful, might otherwise adduce private friendship as the reason for the awards. It really matters very little how high the position of a *resident* Judge may be generally considered, or how *justly* his associates may be entitled to their much-coveted distinctions; still, there will be *always* found numbers ready to impugn his

motives, and to demonstrate, if required, that the issue resulted from an invitation to a dinner party, a day's coursing, or some other as ungenerous conclusion. It is, therefore, decidedly the more prudent course never to permit a Poultry Judge to domicile himself, even temporarily, at the house of an exhibitor, but rather to avoid such hospitalities and connection, at least, till his duties are absolutely fulfilled.

It may be advanced, that "if gentlemen of high standing consent to this office, common politeness demands that they should be courteously received;" this, it is fully admitted, is no unjust conclusion; but generally, some neighbouring respectable Inn will certainly furnish all *necessary* comforts without entailing unpleasant reports afterwards. No doubt whatever exists, that the more free from suspicion all the management of a Poultry Show is carried out, the better and more satisfactory will be the result as a present speculation, and the influence will as undoubtedly extend itself to *future* meetings of the Society. We, therefore, say to committee-men—advise your Judges of the quarters secured for them previously; provide for them with necessary liberality; but do not tempt *false* report, by making them inmates of your houses.

Another very great advantage of employing practical Judges, is the advantageous improvements they will necessarily suggest as to *future* management, more especially as regards general efficiency, and that combined with reduction to the minimum of all *unnecessary* expenditure; items that frequently are but little foreseen by the inexperienced in such undertakings.

It is really surprising how difficult the task proves itself of obtaining parties whose knowledge extends over *all* the classes in a Poultry Show; nor can we call to mind more than three or four gentlemen who can, throughout, undertake this office satisfactorily. From this cause, many have suggested a multiplicity of Judges, and the appointment of certain classes only to experienced individuals as to those especial varieties. There cannot be any objection to this course, if carefully undertaken, as it, no doubt, much lessens the toil and irksomeness of office; but, like many other matters, "first-sight impressions" are scarcely borne out by the stern proof of experience. Expenses are naturally increased in precisely ratio proportions, and therefore the calls on the funds of the Society are frequently thus rendered beyond the limits that prudence would dictate, or the maintenance of a trifling balance to meet future contingencies would render advisable and compulsory.

We make these remarks from conviction, that the future energies of any committee are greatly influenced by the fact, whether or not "*there is money in hand*," when in another season they *renew* operations.

We are, at this present moment, in possession of information, which convinces us that the year 1856 will not pass by without *greatly increased value* of Poultry premiums, more particularly as regards *plate*; and we have received not a few communications, from various committees, that bespeak great emulation prevails among rival societies to attain superiority, together with intimations of projected meetings in localities where hitherto no such effort has been attempted. These, combined, point forcibly to the still greater care and reflection that will be necessary, in every appointment, to ensure ultimate and unfailing success; and although the matter just considered is, undoubtedly, a prominent feature, there are many others which greatly influence such undertakings, and to which we intend to direct the attention of our readers, in future numbers, as our space will allow.

LIVERPOOL POULTRY SHOW.

EXCLUSIVENESS is more or less the desire of all men, and those who have triumphed in small encounters wish for some place where none but those already distinguished shall be admitted, and for an opportunity of trying their merits against approved champions. The third exhibition at Liverpool provided these desiderata, and came opportunely as the best great show where the giants might try conclusions. It was the desire of the managers that it should be select, and seeing they could only accommodate about four hundred pens, they raised the price of admission to 8s. for each pen. The experiment realised their most sanguine expectations, as they had 425 pens of the finest birds in the world. The intrinsic value of the cups given last year, added to the desire to possess them now, and with the liberality that distinguishes all the acts of this model committee, they doubled the value of those awarded to the Dorkings and Spanish, and added a pound in value to six others, allotted to the different breeds.

The show was held, as before, in Lucas's Carriage Repository, and, anticipating the arduous duties those gentlemen would have to perform, the whole of Tuesday was allotted to the Judges' labours. This was a great improvement, and more satisfactory to all concerned.

Nothing is more certain than that the Spanish and Dorking classes increase daily in numbers and merit, and it is impossible to speak too highly of the birds exhibited in them at this beautiful show.

The adult *Spanish* added to the numerous triumphs of Mr. Davies, who took both prizes and the Silver Cup, also the second for chickens; while Mr. Brandrich was successful in taking the first. These two classes were, in our opinion, the best ever exhibited together.

The Rev. S. Donne took the Cup for *Dorkings*, and all the other prizes went to Mr. Wright, of Widnes. This was a close run and hard triumph, and the Reverend gentleman may be proud of his success.

In *Cochins* he also took the Cup, thus repeating his exploit of 1855. His were old birds, and the chickens in the pen of Mr. Stretch were worthy rivals for the first honours. The old *Grouse* birds were very much out of condition.

Mr. Chase, of Birmingham, took both first prizes for White. Mrs. Herbert took second; and, to make amends, the lady was in the same position for Buff birds. Mr. Davies occupied the usual place in *Brahmas*, and Messrs. Mac Michael and Teebay well deserved their second prizes.

We must make one general commendation of the *Game* classes—they could not be surpassed. The names in the prize list will speak for them; but while we pass this general eulogy, we are bound to speak of one pen belonging to Mr. Joseph Hindson, which took the Silver Cup—they were magnificent.

Good *Hamburghs*, of every sort, are expected in Lancashire, and none who went to see them were disappointed. Messrs. Worrall, Archer, and Dixon, eclipsed themselves, and took all the first prizes; and such exhibitors as Messrs. Chune, Greenall, Dixon, and Conyers, were second.

Mr. Edwards was obliged to give up the first place in *Black Polands* to Mr. Battye, but we looked in vain for Mr. Conyers's unique Preston birds. *Golden* were the best we have seen for a long time; and the *Silver* had many perfect specimens among them.

The *Bantams* were very good, and the prizes were well contested in each class.

In *Geese*, and *Aylesbury Ducks*, Mr. Davies achieved easy triumphs. His birds were of unusual weight.

Mr. H. Worrall was first in *Rouens*, showing a drake weighing 9½ lbs. Mr. Conyers, and the same gentleman, took well-deserved honours from other varieties; and Captain Hornby took first prize for unusually good *American Turkeys*.

We come now to the single cock classes. Mr. Moss took the prize with an unrivalled *Spanish* bird; he refused £40 for him. Mr. Ullock was successful in *Dorkings*, and sold the bird for £20. Mr. Wright sold his highly commended cock for £10. Mr. Copple was first in *Cochins*. Rev. T. L. Fellowes, for *Pencilled*, and Mr. Worrall for *Spangled Hamburghs*. Lord Sefton was equally distinguished for a perfect *Game* cock.

We have said enough to prove that this was no ordinary

show, and some additional details will convince even the most incredulous. Mr. Davies's prize pen of *Spanish* was claimed by Captain Hornby for £100. The Cup *Game* fowls were claimed for £10. Twenty pounds per pair were offered, and refused, for the *Cochin* prize chickens, and £15 for the adults. Ten and twenty pounds were given for single *Dorking Cocks*, and we have before stated, Mr. Moss refused £40 for a young *Spanish* cock.

It may be interesting to see at one glance who won the Cups, we therefore give them.

<i>Spanish</i>	Mr. Davies.
<i>Dorking</i>	Rev. S. Donne.
<i>Cochin</i>	Rev. S. Donne.
<i>Game</i>	Mr. Hindson.
<i>Pencilled Hamburgh</i> ..	Mr. Archer.
<i>Spangled Hamburgh</i> ..	Mr. W. Worrall.
<i>Polish</i>	Mr. Baker.
<i>Bantams</i>	Mr. Dixon.

This exhibition was a bold experiment, but with such management as that of Messrs. Moss, Worrall, Peel, and Williamson, any thing might be successful. We believe it is proposed next year to offer a programme of startling novelty and magnitude; and while we congratulate and thank them for this year's treat, we look forward to and predict success for the future.

EXHIBITION OF POULTRY AT WINDSOR.

THE Committee of the Windsor Poultry Show have bestirred themselves in time, and their prospectus will shortly be before the public, under the patronage of H. R. H. Prince Albert. As breeders of early chickens and others may, however, be glad to know what is in prospect, we may as well state, shortly, what the contents of the Prize List will be. Here will be prizes of £3, £1, and 10s., for adult birds in the following classes:—Black *Spanish*; Grey *Dorkings*; Speckled, Cuckoo, or any other coloured *Dorkings*, except White; White *Dorkings*; three classes of *Game*; *Brahmas*; Buff or Cinnamon *Cochins*; Brown, Grouse, or Partridge *Cochins*; White or Black *Cochins*; Gold-spangled *Hamburghs*, Silver-spangled ditto, Golden-pencilled ditto, Silver-pencilled ditto; Golden *Polands*, Silver ditto, Black ditto with white top-knot; any other coloured *Polands*. Prizes of £1 and 10s. each will be given for Chickens of 1856 of all the above classes excepting *Game*. Prizes of £2 and £1 will be given in the following classes:—Gold and Silver-faced *Bantams*; any other sort of *Bantams*; Geese; *Turkeys*; *Aylesbury Ducks*, Rouen ditto, any other sort of ditto. Two prizes of £1 and 10s. for Black *Hamburghs*, and three prizes of £1 each for any other distinct variety.

Eight pieces of plate, of the value of five guineas each, will be given for the best pen of *Spanish*, *Dorkings*, *Game*, *Cochins*, *Spangled Hamburghs*, *Pencilled Hamburghs*, *Polands*, and *Bantams*, respectively. A silver cup, value seven guineas, will also be given for the best collection of not less than four pens of Chickens of 1856. It is also hoped that a local cup may be added. The committee have adopted their last year's rules with one or two very important additions, to which we would call the attention of all committees. "The competition for prizes will be confined strictly to amateurs; and no dealer, or poulterer, will, under any circumstances, be permitted to enter birds for competition, either in his own or any other person's name; and in order to carry out this rule with the utmost strictness, the committee reserve to themselves the power of refusing and rejecting any entries that they may think proper, without assigning any reason whatsoever for so doing." There is another rule, prohibiting either exhibitors or their servants to enter the Show before it is open to the public, or in any way assisting in packing and unpacking the birds. This rule was found necessary owing to the annoyance to which the committee were subject last year. The cocks and hens will be sold separately. Cook's registered pens will be used, and every endeavour exerted to make the Show worthy of the Royal Patronage under which it is to take place. The first day of opening will be the day of the Annual Eton Regatta, and will, no doubt, bring together a vast assemblage of people.

THE PIGEON PRIZES AT BIRMINGHAM.

I CANNOT remain silent after reading "B. P. B's." remarks of January 15th, wishing to class Toys with high-class birds. I only beg to say, as a fancier, I quite agree with "Tristram Shandy," and am proud to see that he has taken upon himself to put a stop to the absurdity (without prejudice, being not an exhibitor) of classing Toys with high-class birds of the fancy, Almond Tumblers, Pouters, and Carriers. Being an exhibitor at Birmingham, myself, I think I have a right to a voice. For the future, I hope that committees will state the class of birds to be exhibited, which will put a stop to loopholes for judges and exhibitors to creep out of. Does not the list of the cup exhibitors at Birmingham prove that six of the ten that competed for the cup exhibited Tumblers, Carriers, and Pouters? I am sure that, as experienced fanciers, of which there is a proof, they were of candid opinion that Pouters, Carriers, and Tumblers were the only birds worthy of the Silver Cup. I think it is absurd in the extreme for persons to write in favour of Toys; for I am quite sure they cannot understand that there is any difficulty in rearing high-class birds.

I go as far as to say, *that there is as much difficulty in breeding a first-class Almond Tumbler, Pouter, or Carrier, to take prizes, as there is in breeding a high-bred horse to win the Derby or St. Leger.* Toys, if only matched to their own class, will multiply as freely as rats in a barn. I must fall back on Sam Slick's remark, "like father, like son:" although very pretty, still they are not to be classed with the high-bred birds, Pouters, Carriers, and Almonds.

Perhaps the challenge in the *Sunday Times*, of January 6th, has slipped "B. P. B's." eyes; if so, I dare say that some kind friend will step forward and accept it. I am quite sure "B. P. B." does not understand the high-class birds. In his remark, I see he ridicules the dwarf of a Tumbler, the coating the beak of a Carrier, the toe-nail of a Pouter, with unnatural prolongation of horn. I have only to say, that when a person is a competent judge, he can detect all those pieces of trickery; or, if he cannot, why he should not judge the birds. I am also of opinion, that the judges were very singular in their decision in many of the high-class birds. Did any one ever hear of Pouters taking the prize, whose colour I cannot describe, neither do I know what to call them, although, while at the show, I took a few notes? Pouters, with large, nearly white bodies, stained tails, black beaks, orange eyes, thick Runt heads, white flight, heavy-feathered legs, and no carriage. Fanciers would laugh at such birds in London, supposing they were the best exhibited; if they were, I should not award the prize to such RUBBISH. Pouters should be whole-coloured; Pied, or Grizzles, but not with white flights when grizzled. A Pouter, when in full show, with all properties, is a very noble bird, which no one can deny. The *White Dragons* were no more nor less than a pair of young *Horsemen*. Mr. Madleford's birds were far superior, perfect *Dragons*, and of a *scarce colour*; variety of colour, judges should take in strong consideration. There are many good fanciers that would exhibit; but they are aware that the judges are constantly wrong. Certainly, it is difficult to please all; but it is quite easy for a good fancier to judge certain birds in a few minutes, which he has been in the habit of keeping. Then you would directly reply, that committees cannot afford to have three or four judges. I am of opinion, that not a single individual in the fancy can possibly understand all classes of birds, to point out the merits and demerits of every one of them: besides, while fanciers are using the hourly watching in rearing of high-class birds, and the great expence in procuring of fresh blood, which no one but a breeder knows of, I think it is decidedly wrong to the fancy, particularly as they pay for entering, that they should be allowed to be beaten by inferior birds, simply because the judges are not competent in judging high-class birds. I would guarantee, that the birds which took the silver cup at Birmingham could be replaced for one-twentieth the cost of those commended. I, with others, will never think of exhibiting again, unless the breed of the birds are distinctly mentioned previous to the show; then there will be no crook or corner for fanciers to work out of. I am quite sure that all honest persons will bear me out in my opinion as to high-class birds being preferred before

Toys, which will then put a stop to protests, challenges, and ill-feelings among exhibitors. I go as far as to say, that many persons are too apt to blame committees; which is quite the wrong quarter; it is the judges who ought to be looked to; and do not blame, also, the person to whom the prize is awarded: but, of course, we all put in for it. But the grand consideration—which has most right to the cup; high-class birds, varying from £6 per pair, upwards; or mere Toys, that such as were at Birmingham could be procured for 6s. per pair? The best of the Toys are not bred by English fanciers; they are due only to foreigners. Many of the birds were imported, or bred from imported stock, that were at Birmingham; but on the contrary, high-class birds are made to perfection by the fanciers of England; those of London more particularly.

I particularly notice "B. P. B's." conclusion, in respect to looking through a piece of darkened glass; but I am quite of opinion, that "Tristram Shandy" has a much clearer piece of glass in hand, which affords him to look further into the art and knowledge of Pigeons.—F. L. CORKER, a *Columbarian and Exhibitor*.

CHAPTERS FROM THE TRISTRAPEDIA.

No. II.

PIGEONS AT POULTRY SHOWS.

As "gentlemen on the committee," are now about to consider the schedules for the next exhibitions of poultry, &c., I entreat respectfully, but earnestly, to demand their attention to a greatly neglected feature of their shows—I mean to Pigeons.

It is gratifying to see that the claims of these birds are being more and more recognised, from the simple fact that they are now deemed an essential feature at all shows which have *any pretensions to respectability*; with one exception, and that exception I will not specify further, than to say, that I am satisfied that Liverpool does not intend, for the future, to allow such a reproach to continue; neither their unfairness to Polish fowls.

I have nothing with which to reproach Birmingham in this matter. That committee of gentlemen will act fairly by Pigeons, I have no fear. There was an evident oversight, in respect to the Cup pens, which, doubtless, they are themselves aware of; and being aware of, it will not be disregarded.

Did I say *reproach* the Birmingham Committee? Yea, rather let me *thank* them, and heartily to, for setting the example to other committees, to pay due respect to Pigeons, and giving to them, too, their Silver Cup.

It is indisputable, that a pen of Pouters, Carriers, and Almond Tumblers, earn their reward of a Cup about ten times more hardly than does a pen of any, I say of *any* description of poultry. This is no unguarded expression. But, lest any honest-minded amateur of poultry, unacquainted with Pigeons, should doubt it, I have much pleasure in explaining to him, that, in the first place, a thorough good pair of each of these birds, would, together, cost him £25 to £30, or even *more*. Now, what pen of poultry would fetch such a sum? I say really *fetch* such a sum *now*? But, in the case of such Pigeons, the worst is, that the would-be purchaser may wait six months ere he can buy them at all, so scarce are first-rate birds. Let any one, for instance, advertise for a pair of first-rate yellow pied Pouters, it is ten to one that he will have a single offer.

Secondly, I would tell the poultry amateur, that if he bred a single pair of really first-rate Pouters, or Almond Tumblers, in one year, he would be a fortunate man. And, thirdly, that, in the case of his Carriers, he must keep them for four years or so, before they *can* be fit for showing. Now, how does all this compare with a pen, I repeat again, with *any* pen, of any poultry?

Seeing, then, these things, let it be urged upon committees, not only "to admit Pigeons," as the humiliating phrase goes, but to make Pigeons a *chief feature of the show*. To do this, they must make the prizes adequate. What fancier would send valuable Almond Tumblers, for example, say 100 miles,—birds worth £10, for a five shilling prize! 'tis monstrous!

I would suggest to committees that the prizes be *grated*, as they are with poultry. No Carrier, Tumbler, or Pouter, should ever have a less first prize than two, or, at the very least, one guinea; or they ought, as must appear from their value and scarcity, to have prizes equal to the highest for poultry. All the other sorts of Pigeons, I admit, should have less than poultry; for these common sorts cost comparatively little, are easily reared, and breed true, without difficulty or care.

Let me, in conclusion, assure committees that the foregoing remarks are not lightly written. They are, at least, the well-considered conclusions of a disinterested man, and, I may add, without vanity, not of an inexperienced one.—TRISTRAM SHANDY, *Hull*.

P.S.—But one word more, my dear readers, with that *bumptious* amateur of "Cochins," who, I see, is pooh, poohing Pigeons. I mean the committee-man with a white waistcoat and gold studs! He asks, "What's Pigeons?" "What's Pigeon-fanciers?" "Never heard, and doesn't care for 'em." Let me tell him, that Carriers and Pouters are not things of ten years standing only, but of 150. That pigeon-fanciers, too, were not manufactured like Birmingham wares, at a Birmingham Poultry Show, only ten years ago! No! that 150 years ago pigeon-fanciers were as spirited a body as they are at the present time; and the birds of the fancy, their Carriers and their Pouters, were as highly-prized then as they are now. 'Tis a time-honoured fancy—'tis a fancy whose spirit has never flagged, for above a century-and-a-half—can you say so much for any other! Take your own "Cochins," my dear Sir. Will you vouch for them? or even for the poultry-fancy itself? 'Tis only such men as you, that pooh, pooh Pigeons.

FAREHAM POULTRY SHOW.

FIVE hundred visitors paid for admittance at the doors exclusive of subscribers and exhibitors tickets. The exhibition gave general satisfaction, and a good list of subscriptions is opened, including plates for the autumn show this year.

GAME FOWLS.

THE prominent position Game fowls occupy, and their increasing numbers at our Shows, evidently will determine some fresh amateur of 1856 to begin the fancy with a pen, *very likely*, without knowing much more about them than the presumed correctness of his eye dictates. The Game fowl (I speak of them generally), to be seen in perfection, must be viewed "*as cock of the walk*"—unrestrained, unpenned, in his native freedom; and here he is a prince of a fellow—smart, tight, round, quick as lightning. See him approach an intruder: no crowing at a distance; no measuring ground, no fencing; up he goes at railroad speed (probably, to a great fluffy-hackled, warty-eyed Malay). Here he is—*one, two, three*—close up under him, seeming to accept quarter, and meaning to give none; his agile legs, assisted by his powerful wing, darting the spur with a force few who know not the bird can imagine.

His beauty of form and plumage none will dispute; indeed, take him as a whole, he is a good, generous, bold, daring, handsome little *gentleman*. The hens, too, are very symmetrical and beautiful; their extreme tightness of feather, and wild pheasant habits, rapidly darting and skitting about in the grass after flies and insects, is most amusing and singular.

Now comes, like in a lady's letter, the best part of this epistle in the postscript, or rather the *finale*.

What are the general essentials of a Game bird? *Imprimis*. Remember the greyhound's points, viz., neck like a drake, head like a snake, tail like a rat, foot like a cat. Now, I do not mean to imply that a bird should have a rat's tail, or a cat's foot; but the gist of the lines is, that small extremities are considered essential in that animal, as also in a racehorse. Whoever saw a short-necked, gowly-headed, coarse-tailed, platter-footed, of either kind, worth a rap? Or, whoever saw a great, loose-hackled, round, chubby-poll, coarse-sterned and legged bird, but what was a thorough rip, and mixed with the curse of all Game fowls, the Malay? These Malays have done more injury to the

Game breed than any other class. The awkward truth is, that there are few birds without a touch of Malay blood (I speak comparatively); the size and habits of the bird are vulgar imitations of our gentleman—exuberant in height, feathering, and pretensions, they have contracted alliances with an aristocratic race; and as the grosser parties most times are the heavier, so this lump of foul blood weighs with tenacious infamy on the prince of birds, sadly damaging his real nature.

Ad revoir. The weight of the Game bird is very deceptive, from his tight and compact build. What to a novice would appear a little bird, on being handled turns out to be "a big little bird." About four pounds-and-a-half is nearly the weight; five pounds is certainly very far up the mark (*for practical purposes decidedly*). Well; so far, so good. He should be long in his neck, and the hackle short, and very close, not flowing too much over the shoulder; the junction of the neck to the head should be strong, but the latter small and flat; the jaws, or under bill and throat, lean and red, and the upper bill somewhat Roman, ending sharply; the stern lean and light, with the perfection of a tail (no bird carries a better one); the legs, of whatever colour you may choose them, must be very particularly looked to. A short shank is good; a very short one suspicious; a foul, *broad scaled* shank infamous (how many prizes have I seen go to such brutes!); the thigh almost incased in a black silk stocking, *i.e.*, not a loose or long feather to be seen for worlds, and very large, hard, and muscular—a "blacksmith's deltoid;" the feet (not much like a cat's, by-the-by) ought to be somewhat large, and the toes long. I doubt whether they really are so; they carry that appearance, from the trim and light build of the limb throughout; but such they appear. The wing is an essential in a Game bird; it should be long in the pinion, not set too high. The object of a strong wing is to give force to the blow, as the pectoral muscles and the long pinions give a swoop and force perfectly marvellous. The covering of the bird is to be a homogenous thin mass of feather, hard, compact, firm, so mail-like, that grain suddenly thrown on the bird's back should rattle and recoil as if it were from parchment; even the vent feathers should be free from down or fluff.

These rapidly-run-over particulars constitute a Game bird. I will tell you, most patient reader, some more one of these juicy Devonshire days.—As usual—W. H.

GREAT NORTHERN POULTRY SHOW.

THIS took place at Doncaster on the 23rd and 24th inst. Our reporter's parcel being miscarried, we can only say that the following first prizes were taken:—For *Spanish*, by Dr. Peirson and the Rev. Morton Shaw; for *Coloured Dorkings*, by E. Akroyd, Esq., and T. M. Keyworth; for *White Dorkings*, by Rev. G. Hutton; *Shanghaes (Buff)*, by W. Dawson and Rev. Morton Shaw; for *Shanghaes (Brown)*, R. Swift and T. B. Stead; for *Shanghaes (White and Black)*, W. Dawson and J. E. Wilson; for *Brahma Pootras*, E. Simons and Miss M. E. Tong; for *Malays*, J. Buncombe and Rev. T. L. Fellowes; for *Game*, J. Cannin, W. Hopkinson, C. Chaloner, W. Dawson, J. J. Pilling, W. S. T. Gooseman, and J. Morgan; for *Golden-pencilled Hamburgs*, Viscount Galway and Mrs. Parkinson; for *Golden-spangled Hamburgs*, E. Auckland and G. L. Fox; for *Silver-pencilled Hamburgs*, Mrs. H. Sharpe; for *Silver-spangled Hamburgs*, E. Auckland; for *Polands*, T. Battye, J. Dixon, and W. Dawson; for *Bantams*, H. D. Bayly and M. Ridgway; for *Geese*, H. Ambler; for *Ducks*, J. Conyers, E. Akroyd, G. Liddle, and J. Aldham; for *Turkeys*, G. Daft and C. Poeklington.

It was an excellent exhibition. We will give full particulars next week.

LONDON MARKETS.—JANUARY 28TH.

COVENT GARDEN.

Considerable improvement is to be noticed this week, both in the quantity and quality of forced and other *Vegetables*. *Rhubarb*, *Sea-kale*, and *Asparagus*, being now quite equal to the demand, and prices have somewhat receded. We have, also, received from France some excellent *Salading*, consisting of *Endive*, *Cabbage Lettuce*, and *Barbe du Capucin*, and a sample of *Green Peas* in very fair condition; but the locality of their growth we have not been able to ascertain. The Cornish *Brocoli*

to hand this week is very superior to anything else of the kind, being white, close, and well-flavoured, and makes 4s. to 6s. per dozen.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s.
" dessert	6s. to 10s.
Pears	8s. to 12s.
Peaches, per doz....	—
Nectarines, per doz...	—
Plums, per sieve	—
Pine-apples, per lb....	6s. to 8s.
Grapes, per lb.....	2s. to 8s.
Foreign Melons, each	2s. to 4s.
Figs.....	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. to 10s.
Lemons	6s. to 12s.
Almonds, per lb.....	2s. to —
Nuts, Filberts, per 100 lbs.	50s. to 60s.
" Cohs, ditto ..	60s. to 70s.
" Barcelona, per bushel	20s. to 22s.
Nuts, Brazil, per bushel	12s. to 14s.
Walnuts, per 1000 ..	9s. to 12s.
Chestnuts per bushel	12s. to 20s.

VEGETABLES.

Cabbages, per doz. 1s. to 1s. 6d.	
" Red, per doz. 2s. to 4s.	
Cauliflowers, per doz. 4s. to 6s.	
Broccoli per bble	1s. to 2s.
Savoy	1s. to 2s.
Greens, per dozen bunches	4s. to 6s.
Spinach, per sieve	— to 4s.
Beans	—
French Beans, per hundred	3s. to 4s.
Scarlet Runners	—

Peas, per bushel	—
Carrots, per bunch ..	4d. to 6d.
Parsnips, per doz....	6d. to 9d.
Beet, per doz.	1s. to 1s. 6d.
Potatoes, per cwt. ..	3s. to 6s.
Turnips, per bunch ..	— to 3d.
Onions, young, per bunch	1d. to 2d.
Leeks, per bunch	2d. to 3d.
Garlic, per lb.	6d. to 8d.
Shallots, per lb.	4d. to 6d.
Horseradish, per bundle	1s. 6d. to 2s. 6d.
Lettuce, Cos, per score	6d. to 1s. 6d.
" Cabbage....	6d. to 8d.
Endive, per score ..	1s. 6d. to 2s.
Celery, per bunch ..	9d. to 1s. 6d.
Radishes, Turnip, per dozen bunches ..	1s. to 1s. 6d.
Water Cresses, per dozen bunches	6d. to 9d.
Small Salad, per punnet	2d. to 3d.
Artichokes, each	3d. to 6d.
Asparagus, per bundle	5s. to 8s.
Sea-kale, per punnet	2s. to 3s.
Rhubarb, per bundle	1s. 6d.
Cucumbers, each	1s. to 3s.
Vegetable Marrow, per dozen	—
Tomatoes, per punnet	—
Mushrooms, per pot	1s. 6d. to 2s.

HERBS.

Basil, per bunch	4d. to 6d.
Marjoram, per bunch	4d. to 6d.
Fennel, per bunch ..	2d. to 3d.
Savory, per bunch ..	2d. to 3d.
Thyme, per bunch ..	2d. to 3d.
Parsley, per bunch ..	2d. to 3d.
Mint, per bunch	2d. to 4d.

GRAIN AND SEED.

FRIDAY, JAN. 25.—The arrivals still continue unimportant. From abroad there is but one cargo of Wheat and two of Oats, and the English quantities are still not too abundant. This morning there is no greatly improved tone in the Wheat trade, buyers and sellers appear equally indifferent, and Wheat moves off slowly at the late decline. Barley in more demand, at firm prices. Oats find a limited consumptive trade at Monday's rates. Beans, Peas, and other things are firm. Town Flour is without change, but Norfolks realized about 1s. more money.

WHEAT, Essex and Kent red, old.....	—s —s —s, fine —s —s 0s
Ditto ditto new.....	67s 72s —s, fine 74s —s —s
Ditto ditto white old.....	—s —s —s, fine —s —s —s
Ditto ditto new.....	71s 80s —s, fine 81s —s —s
Foreign, red.....	75s 83s —s, fine 84s 92s —s
Ditto, white.....	80s 90s —s, fine 87s 94s —s
RYE.....	52s 54s, fine —s —s
BARLEY, grinding.....	30s 32s, fine 34s 36s
Distilling.....	34s 36s, fine 38s —s
Malting	38s 40s, fine 40s 42s
MALT	74s 76s, fine 78s —s
PEAS, hog, new.....	38s 40s, fine —s —s
Maple	40s 42s, fine —s —s
White	46s 50s, fine —s —s
Blue	52s 54s, fine —s —s
BEANS pigeon.....	52s 54s —, new 40s 52s —s
Ticks for splitting	42s 44s —, new 40s 42s —s
Harrow	50s 54s —, new 46s 48s —s
OATS, English feed	23s 24s, fine 24s 25s
Poland or brew	27s 28s, fine 28s 29s
Scotch potato	30s 31s, fine 31s 32s
Ditto feed	28s 29s, fine 29s 30s
Irish potato	26s 27s, fine 27s 28s
Ditto feed white.....	23s 24s, fine 24s 25s
Ditto black.....	24s 25s, fine 25s 26s
Foreign feed free	23s 25s, fine 25s 26s
Poland or brew	26s 28s, fine 28s 29s
FLOUR, Town made, per sack	67s 70s 73s, Seconds 62s 65s
Essex and Suffolk	55s 57s
Norfolk	52s 54s

* This is a nominal price.

HOPS.

BOROUGH MARKET, FRIDAY, JAN. 25.—During the past week the trade has continued steady, and for the choicest qualities rather more money has been obtained. The best samples of brown Hops have also been in fair demand at about recent quotations.

HAY AND STRAW.

Clover, 1st cut per load	110s. to 140s.
Ditto, 2nd cut	90s. to 130s.
Meadow Hay	90s. to 130s.
Rowan	80s. to 90s.
Straw, flail.....	30s. to 36s.
Ditto, machine....	28s. to 30s.

POTATO.

SOUTHWARK WATERSIDE—JAN. 21.—The supply abundant, weather mild, and sales extremely dull. Kent and Essex Regents, 80s. to 85s.; ditto Shaws, 0s. to 0s.; York Regents, 90s. to 100s.; Lincolnshire Regents, 80s. to 90s.; Wisbeach and Cambridge Regents, 80s. to 85s.; Bedford Regents, 85s. to 90s.; ditto Shaws, 0s. to 0s.; Norfolk Regents, 0s. to 0s.; ditto Whites, 0s.; Scotch Regents (East Lothian), 85s. to 0s.; ditto (Red Mould), 90s. to 0s.; ditto (Perth and Fife), 70s. to 80s.; ditto (North Country), 70s. to 0s.; Dalhousie and Rattlers, 0s.; Blues, 0s.; Orkney Reds (East Lothian), 75s. to 85s.; ditto ditto (Red Mould), 85s. to 0s.; Scotch Cups (Perth and Fife), 55s. to 65s.; ditto (North Country), 40s. to 50s.; Irish Kemps and Clusters, 50s. to 0s.; ditto White Rocks, 50s. to 60s.; ditto common Whites, 0s. to 0s. per ton.

POULTRY.

The change in the weather, a moderate supply, and an unusually small demand, has caused depression during the past week, and the previous prices have hardly been maintained.

Cock Turkeys .. 10s. to 14s. each.	Pigeons.... 1s. 3d. to 1s. 4d. each.
Hen Ditto 7s. to 7s. 6d. „	Larks.... 1s. 3d. to 1s. 6d. per doz.
Large Fowls .. 5s. to 5s. 6d. „	Wild Ducks 2s. 3d. to 2s. 6d. each.
Smaller do. 3s. 6d. to 4s. 6d. „	Teal 1s. 9d. to 2s. „
Chickens 2s. 6d. to 3s. „	Woodcock .. 4s. to 4s. 6d. „
Geese..... 7s. to 7s. 6d. „	Snipe 1s. 9d. to 2s. 0d. „
Pheasants.... 3s. to 3s. 6d. „	Rabbits .. 1s. 4d. to 1s. 6d. „
Partridges.... 2s. to 2s. 3d. „	Wild do..... 10d. to 1s. „
Hares 2s. 6d. to 2s. 9d. „	

PROVISIONS.

The following are the quotations:—

BUTTER.—Cwt.		HAMS.—Cwt.	
Cork.....	100s. to 112s.	Irish.....	82s. to 86s.
Limerick.....	98s. to 102s.	Westphalia	72s. to 76s.
Carlow	108s. to 112s.		
Sligo	100s. to 105s.	LARD.—Cwt.	
Carriek.....	108s. to 112s.	Bladdered	76s. to 83s.
Waterford	100s. to 106s.	Kegs.....	68s. to 70s.
Holstein	102s. to 116s.	P.M. beef (30lb.)	105s. to 0s.
Friesland	113s. to 116s.	P.M. pork.....	95s. to 97s. 6d.
BACON.—Cwt.		CHEESE.—Cwt.	
Waterford sizeable	56s. to 62s.	English, NewCheshire	70s. to 84s.
Heavy	54s. to 58s.	Cheddar.....	74s. to 80s.
Limerick sizeable ..	0s. to 0s.	Gloucestershire, dble.	66s. to 73s.
Hambro'.....	56s. to 58s.	Ditto, single	60s. to 70s.
Bale middles	0s. to 0s.	Foreign—	
Tierce middles	6ts. to 0s.	Edam	56s. to 60s.
American—		Gouda	50s. to 56s.
Singed sides	56s. to 58s.	Kanta	28s. to 0s.
Boneless middles ..	0s. to 0s.	American	56s. to 62s.
Short middles.....	0s. to 0s.		

MEAT.

	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
Beef.....	3	2	4	6	4	10	5
Mutton	3	6	4	4	4	8	4
Veal.....	4	6	4	10	5	4	
Pork.....	4	0	4	6	4	10	

BREAD.

The price of Bread in the City and at the West End is still maintained at 9½d. to 10½d. the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. ,, 1s. 2d.
Ditto Tegs and		Leicester fleeces...	1s. ,, 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hog-		Combings skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

TO CORRESPONDENTS.

COMPOST FOR VINE BORDER (J. M.).—This is very good; indeed, too good. We should not have added either the stable-manure or the rape-cake. Your turf, taken from an old, light pasture, with your additions of one-sixteenth lime rubbish, one-sixteenth good loam, and half-a-ton of inch bones, would be quite fertile enough.

CAMELLIA BURS DROPPING (Roderick Random).—When this happens, it is quite certain that there is a discrepancy between the activity of the roots and the activity of the leaves and branches. The soil is too cold, or too wet, or too dry, as compared to the temperature or moisture of the house.

COLCHESTER POULTRY SHOW (E. A.).—We can insert no more communications on the subject, as Mr. Tegetmeier has referred the Committee to his attorney.

WHITE-CRESTED BLACK POLAND WITH FROTHY EYES (G. R.).—The frothy discharge from the eye arises from a catarrhal affection of the mucous membrane. I would suggest a trial of Copalba, as described in the last number. The extreme hunger of the bird leads to the suspicion of scrofulous disease of the bowels, in which case the recovery is exceedingly doubtful.—W. B. T.

BARTON POULTRY SHOW.—“Your correspondent, ‘A POULTRY AMATEUR,’ is rather wrong when he says that Mr. Boothby's Polands were disqualified. It was only his pen of White-crested Black Polish

which were disqualified, and they were disqualified only because Mr. Boothby had not had the cock the requisite time. With regard, also, to Mr. Boothby's Andalusians, it was the pen of Black-crested Black Polish, and not the Andalusians, which took the prize. They were misprinted in the catalogue as Andalusians.—**ANOTHER POULTRY AMATEUR.**"

TULIPS (*An Old Subscriber*).—Plant them at once. They will be late, but unharmed.

SMALL GAME COCK (*Subscriber*).—The chickens of which he is the sire will be smaller than those out of the same hens by a larger sire.

COTTAGERS' PRIZES AT BIRMINGHAM (*Rustic Robin*).—Thanks for your note; but you will see that Mr. Ridgway has already stood forward in defence of the Dewsbury exhibitors.

INDIAN MEAL (*A Gardener's Wife*).—We can testify that it is very nutritious. Will some one say how it should be used? No heaven, we think, is equal to good yeast.

SELF-INSTRUCTION (*Waterton*).—We have long had in view the subject you mention, and have made some preparation to carry it out. You will find that we shall continue publishing both plans and portraits. As soon as the second edition of **THE COTTAGE GARDENER'S DICTIONARY** is completed, we believe a Supplement to the first edition will be published.

PROLONGING THE BLOOMING OF CHRYSANTHEMUMS (*Verax*).—This can be easily done by having an awning over them in the same manner as over Tulips. It is so done in the Temple Gardens, in London. We will inquire further relative to the contents of your letter.

POINTS IN A GOOD BRAHMA-POOTRA (*J. B. C.*).—You, doubtless, allude to Mr. Allison's prize hen, the winner, at Colechester, of the sweepstakes for the best Brahma hen. She was very accurately and beautifully pencilled, had a pea-comb, and weighed more than ten pounds. *Light Brahmas* should have white bodies, black-pencilled hackles, black tails and flights. *Dark Brahmas* should be pencilled all over, and the pencilling should be light tracing, as if done with a camel-hair brush or a crayon, and the tracing plentiful enough to conceal anything like white. They vary in size from seven to ten pounds each.

FOOD FOR MACAWS (*I. T. K.*).—Food for a Macaw should be sopped bread, Indian corn, and hemp-seed. It is always a sign a bird is diseased when it eats its feathers, and the cause is very often heat and a fevered skin. Try cooling food, such as fruit. The great thing to avoid in this climate is cold, especially draughts at nights, when there is no fire in the room.

CLEANING THE FEATHERS OF FOWLS (*A Constant Reader*).—You may wash your fowls with soap-and-water. It is only the outer part of the feather that is dirty, and it will easily be removed with a sponge. Do not rub against the feather. When they are washed, put them in a basket, with plenty of clean, soft straw, and put them near, not too near, a good fire till they are quite dry.

DARLINGTON POULTRY SHOW.—The Secretary did not send us a list of the awards, and it so happened that we had no reporter there. If a prize list is sent to us we will insert it; we have not one in our possession.

NAMES OF PLANTS (*Rhyd y Gors*).—Your plant, we think, is *Daphne odorata*; but the specimen was imperfect.

NAMES OF FERNS (*W. Young*).—The large specimen, *Adiantum cuneatum*; the seedling is a *Lastræa*, but too young to determine the species. We will say something about greenhouse climbers next week.

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Advertisements.

Will be published in February.

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Being directions, step by step, for the cultivation of each crop in the garden of the Amateur and Cottager.

By some of the Contributors to THE COTTAGE GARDENER.

It will be published at a very low price, so as to be purchasable by every one who has a garden plot; and facilities will be given for its gratuitous distribution by Clergymen and Gentlemen.

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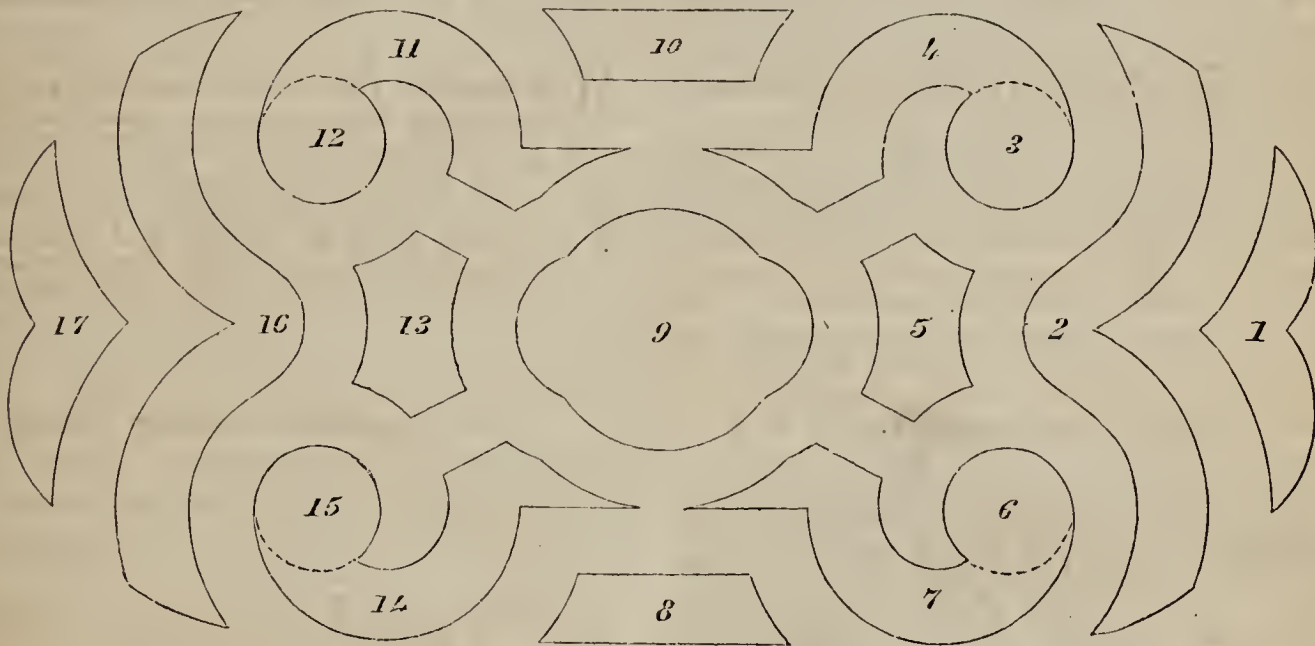
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WEEKLY CALENDAR.

D M	D W	FEBRUARY 5—11, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Therm.	Wind.	Rain in Inches.						
5	Tu	SHROVE TUESDAY.	29.308—29.287	40—31	S.W.	01	36 a 7	53 a 4	7 41	29	14 16	36
6	W	LENT BEGINS. ASH WEDNESDAY.	29.512—29.313	35—29	N.E.	02	34	55	sets.	29	14 21	37
7	Th	Platysoma flavicornis.	29.811—29.741	36—27	N.E.	00	32	57	6 a 24	1	14 25	38
8	F	Platysoma depressus.	30.794—29.662	32—27	E.	00	30	59	7 56	2	14 28	39
9	S	Noctua croceago.	29.883—29.871	30—15	N.E.	00	29	v	9 25	3	14 30	40
10	SUN	1 SUNDAY IN LENT. QUEEN	29.867—29.635	30—1	N.E.	00	27	2	10 51	4	14 32	41
11	M	[VICTORIA M. 1840.	29.534—29.472	35—20	N.E.	00	25	4	morn.	5	14 32	42

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 45.4°, and 32.2°, respectively. The greatest heat, 65°, occurred on the 10th, in 1831; and the lowest cold, 3°, on the 11th, in 1845. During the period 103 days were fine, and on 93 rain fell.



“This is one of two geometrical figures I have laid out. A glance at the sketch will show you I cannot lay claim to originality of design, whatever I may have done in making it suit my place.

“I may remark, the beds are edged with native Heather eight inches from the grass, with the exception of the centre one, which is so edged fifteen inches. The beds Nos. 1, 3, 6, 9, 12, 15, and 17, are encircled by white sand; the others, with dark lime rubbish put through a sieve.

“The numbers on the sketch refer to the plants I would plant, and are as follows:—

- No. 9. *Flower of the Day* Geranium.
- Nos. 3, 6, 12, 15. *Tom Thumb* Geranium.
- „ 5, 13. *Verbena André*.
- „ 8, 10. *Verbena Purple King*.
- „ 4, 7, 11, 14. *Calceolaria Amplexicaulis*.
- „ 2, 16. *Verbena White Perfection*.
- „ 1, 17. *Verbena Robinson's Defiance*.

“Your opinion, together with any suggestion, will much oblige.—Corvus.”

Your geometrical figure is after a celebrated model which we have often seen planted; but yours is, without exception, the best planted figure, as to kinds of plants, the disposition of colours, and the right breadth of each colour, that has yet been sent us for criticism, and we have had it engraved as a model for the disposition of colours. We could not alter one plant in it without lessening the value of the rest. Let us have

your other geometrical figure, and the planting of all the beds under your management. How would you plant a twelve or fifteen-foot-wide border—on the principle of stripes in a ribbon with green or brown ground colour? These are the only two ground colours we have—green leaves and brown surface-earth.

With very deep regret we have to announce the death of J. H. PAYNE, Esq., the gentleman who has so long enriched our pages with his excellent knowledge of Bees. He died on the 27th of January, at Bury St. Edmunds. We hope to obtain a memoir of this man of real worth.

BEDDING OUT PLANTS.—LAWNS.—ROSES.

Whether or not February be the beginning of the new year in the flower-garden, what is the first thing, or the principal things, which you would first attend to at this season in the flower-garden, or which you would order to be done, if you were not your own flower-gardener? Or, suppose you were a “stranger in a strange place,” which a flower-gardener never is, on such grounds, what would *you* first look to in February?

If I got into possession of a nice flower-garden about this time, or undertook to manage one for a second party, the very first thing I would do would be to count all the bedding-plants about the place, and enter the names alphabetically on a rough list. The next thing I would do, would be to number all the beds in the flower-garden, and after every number I would enter the length and breadth of each bed in so many square feet, either by

rough guess, or by actual measurement; then I would say to myself, after casting up the number of square feet, here are so many feet, and there are so many plants to fill them; and as we plant from the distance of three or four inches apart, to eighteen or twenty inches, or more, I would strike a garden average, and say that all my plants would stand at nine or ten inches apart, then I should know, come what will, how far my stock would go, and how far I could increase the different kinds, to be in time for filling in the beds. I would set a hotbed going immediately, if I found the stock too low; and now, being sure of filled beds somehow, I would, with a pencil, make a rough sketch of the flower-garden, putting all the beds and borders in the *exact positions* they stand in the garden, without bothering about the exact shapes or sizes. The number of feet on my list of the beds would tell the size of each better than the eye could from a diminished figure drawn to a scale.

The next point is what every man, or woman, should do most earnestly, if he or she were "in my shoes," that is, to study the plan of the beds, and see how best to dispose of the principal colours according to that plan. There are hundreds of flower-gardens, in which no mortal can make a satisfactory disposition of colours, because the design of the beds was made by some clever person, perhaps a great artist, who did not understand that such a design is merely a means to an end, not the end itself—a good picture. If the design is very pretty on paper, the chances are that it is a stupid piece of business; but be it what it may, I must fill it, and fill it, too, accordingly as it stands, and if I find it a very stupid plan, I must put in a good number of mixed plants *in the principal beds*, then the fault of the design will not be so apparent with the great mass of mankind, if they were to see it every day during the season, nor so easily discovered by the wisest or cleverest critic on a first view. Therefore, when a flower-garden is planted with only one kind of plant in each bed, the design must have been exceedingly good, or the planter was a fool, to expose the plan so palpably, unless he meant to do so.

If I were short of plants, and had money to buy more, I confess I should be rather pleased than not to find out that the plan of the garden I had to fill for the first time was a very stupid one, and to make anything of it, I must plant three or four kinds of Verbenas in one bed, two kinds of Petunias in another, put an edging round a bed, which should be of one plant only; a variegated plant all over another bed, which should have a decided colour in it, with an edging to contrast, and so on throughout all the beds and plants. After a few days to consider it over, and some changing here and there, one might make a very pretty show out of a bad design and with only ordinary plants.

Suppose, on the other hand, that the design of this garden was a perfect model for making a striking picture out of the leaves and flowers of plants, shall I spoil this model by planting in it some of all the plants I have, or only the best of them, which happen to be short of the requisite number of kinds to bring out the full beauty of the design?

This is the most vexed question which we have to deal with, either as flower-gardeners or employers. We have too many kinds of plants for one style of planting, and too few for an opposite style; and in endeavouring to make a compromise between the two, some make one thing of it, and some another; but I shall use my own judgment, and plant such things as happen to be on the place, till I have time to look about me for a better selection; therefore, I find I have more than enough of certain kinds of plants, but not a fourth the quantity of such-and-such plants that I shall need, to make anything of a decent show of it. But, then, it is only the month of February, and there is the cutting-bed just ready, and the Cucumber-bed, too; but hang the Cu-

cumbers—that is, train them on a trellis, and let the fruit hang down over my cuttings. I must use all the available means in my power to get up a proper supply for the beds this season, though the Cucumbers should fall short for this year.

All that settled, the next essential point is the *Grass*, or *Lawn*. If that is in a patchy state, or full of Daisies and other weeds, all the flowers in the world would not compensate for that defect, and now is the proper time to look out for the grass. Our friend "G" has an unsatisfactory lawn, but says nothing about his flowers for the beds. He has taken the best resolve to get rid of the worst part of the business by rooting out the Daisies and other broad-leaved plants, and is now about filling up the holes and inequalities caused by the Daisy-spud with soil and soot, and wishes to know the right depth of fresh soil to lay over the surface. Then he is to sow certain lawn grasses to get an even surface. That is just what I would do if I found the lawn in such a state; but unless I had the soot by me, I would not buy any of it on purpose. I dislike all kinds of stimulants to grass lawns. Generally, they do more harm than good, particularly soot, which only encourages too much for a short period; and if you force young seedling grasses with soot, or other stimulants of short durations, and a hot summer follows, the effect of the soot may turn out to be more injurious than otherwise. Soot is an excellent dressing for an annual crop, as Barley and Wheat, or an early crop of hay, or to give a relish to a bite of permanent grasses; but most gardeners set their faces against all stimulants to short grass; any dressing, indeed, which goes beyond giving a solid surface under the scythe, and that is best done by a thin layer of earth, or coal-ashes, or both; and, therefore, what I would do with a weedy lawn would be to clean out as many of the weeds as possible, and to dress the surface with coal-ashes and earth free from weeds, then to sow only the finer kinds of grass, and white and yellow Clover, and more of them to the acre than I would use if the piece of lawn was trenched and laid down afresh, because many of the seeds will not "take" among existing strong grass. If we say one inch deep of such earth and coal-ashes, at the rate of one part or bushel of ashes to five parts of earth, and spread that equally all over the lawn, the depth will not appear so much there as on paper. Hardly any of the old grass will be hid, and still there will be a sufficient depth for the seeds, and to make an equal and even surface under the scythe. But when grass seeds are to be sown over an old lawn, it is of much more importance to have the dressing laid on perfectly equal in thickness than the exact thickness itself; but an inch thick, more or less, is certainly the nearest way to measure the quantity. I recollect having once laid about two inches over a bad surface, and nothing but common light soil, unscreened, and after sowing the grass and Clovers, I had the whole rolled and raked, to gather up clods and stones. It was a tedious job, and the men complained much about too many stones being left; but after the first few months, and a heavy rolling as often as we could, there were no more complaints about the rough surface; and, certainly, the thing turned out exceedingly well. Even since that time, when I had occasion to repeat that kind of job, I took care to keep the roller well going for the rest of the spring, and before the scythes were set to work. I am satisfied that the roller has more to do with the goodness of old or new lawns, as much as the depth of earth, or the kind of seeds; but I would aim at one inch thick, then sow the seeds, and rake and crush, crush and rake, backwards and forwards, till every clod is broken, and every stone gathered. By that process the seeds were covered and nestled among the old grass sufficiently to make sure of them, the roller would follow in earnest, and I would not be so parti-

cular about keeping down the old grass as I should the rest of the lawn. The beginning of May would be time enough to cut for the first time that season. The young grasses would be thick enough by that time; but in a dry season, I have known the white and yellow Clover to hang back till the following autumn.

In laying down a new lawn one would use from thirty-five to forty pounds of seeds per acre; but for a second-hand job, or old lawn, where the present grasses are too strong already, about twenty pounds would be quite enough, but in different proportions, and only the soft, short grasses should be used with yellow and white Clover; five or six pounds of *White Clover*, about four pounds of *Yellow Clover*, or *Trifolium repens*, the rest of equal quantities of *Meadow Poa*, *Meadow Fescue*, and *Crested Dogstail*, say three or four pounds of each.

Some content themselves by sowing quantities of common hay seed over bad places on the lawn; but that is, of all others, the very worst thing one could do, as all kinds of rough grasses and strong weeds are sure to be mixed with the best hay.

Now that the stock of bedding-plants is settled, the hotbed for more cuttings and seeds is at work, and the planting of all the beds has been determined so far; the next thing is to see whether we can improve the planting by a change of kinds between this and planting time. But what do you think of the Russians now? Are we to have peace, or not? Whether we are or not, we should not relax a nail until the thing is finally settled one way or the other; and that is just what we are to do with the hotbed; keep the old things on the stretch till we are sure of what would fill all the beds, as if no peace, or new plants, were in contemplation. Nevertheless, make every effort to provide a better, or newer, kind of plants. In the meantime, propagate them as fast as if you had to depend on them alone, and take your own way at the time of planting; plant only which kinds *you* think will suit you best. But look over my account of the flower-beds at the Crystal Palace, Hampton Court, and Kew, last autumn, and, surely, you will find some plants, or plans of using them, different from what you have or had in former years.

How are you off for Roses? Have you enough of two year-old *Devoniensis* and *Mahmaisons* for white beds? or of *Fabvier*, or *Gloire de Rosamene*, for crimson beds? If not well supplied, you are still in the back ground. But this is an excellent time to make cuttings of them, and of all other *Chinas*, *Teas*, and *Noisettes*. They will strike now in a sweet hotbed like true Britons, and carry all before them next summer, war or no war. Never mind what *they* say about the righttime for pruning Roses; you prune for cuttings when the right time comes, and the old plants will soon get used to your way, and do just as well as if Mr. Lane or Mr. Rivers had told you to the very day. Look at the writer, who cut his best Geranium on the 10th of January; and to his pupil, who will strike fifteen to the dozen of the cuttings, and say if that be likely to be true to time, or statement; not literally, sure enough, but I shall never own a man who "fears" anything, and more especially if he could not grow fifteen to the dozen of all the cuttings of bedding-plants; but I shall tell you how another time.

D. BEATON.

CRIMEAN FRUIT.—"The Crimea seems to be the only district in Russia where fruit-trees and the vine can in any degree thrive, and even here only in particular situations. Except in the upper valley of the Salghir, they are only cultivated near Sudak and Sevastopol and on the southern coast. Southern fruits are, on an average, less expensive at St. Petersburg, Odessa, and most of the larger cities situated on the sea coast, than the best kinds of apples and pears; and yet I do not

believe that our fruit is inferior to what is produced in the Crimea: on the contrary, many varieties which we consider among our best are wanting here. The German proprietors devote an attention to the cultivation of fruit-trees in the Crimea such as is rarely met with in Germany, even among zealous nursery-gardeners, and they make here a far greater profit. As it is well known that none but inferior wines can be obtained in Champagne, the best quality being exported, the same thing occurs here with respect to the fruit. Every good apple is carefully wrapped in soft paper by the fruit-dealers themselves, and then packed in chests, which are handed over to the heavy steppe-waggons. The fruit, by this means, travels 1500 miles northwards, and is then unpacked with the same care in Moscow and St. Petersburg. We may imagine the price of a Borsdoffer apple, or a good Colville, in either of these cities, when, even in the Crimea, they cost more than a penny a-piece. Unfortunately, I was unable to learn anything precise with respect to the amount of the export, but it is by no means so large as is generally believed. I am persuaded, more fruit is obtained from the valley of the Saale, between Rudolstadt and Naumburg, than in the whole of the Crimea."—(*Koch's Odessa and the Crimea.*)

POINTS TO BE THOUGHT ABOUT IN FEBRUARY.

WINDOW GARDENING.

WE have seen but little of the sun lately, unless when associated with a severe frost; but we may confidently expect the light to be now fast gaining in power, and our first aim should be to give the plants all the benefit they can get from the sun. In very clear, frosty days, the dry air and the bright light may be too much for the plants, especially if used to a week or a fortnight of dull, foggy weather; and, in such circumstances, a slight shading of thin muslin, or moving the plants a little further from the glass, and moistening of the foliage, may be necessary; but the sooner the plants will bear the full force of the sun's rays without flagging, or any other signs of distress, the more robust and healthy will they become. As the sun gains power, *watering* will require to be attended to more, as the soil will sooner be dried by evaporation, and the greater quantity of moisture absorbed by the plants, to meet the increased transpiration from stems and foliage; but that watering should only be repeated when the soil is getting dry, and then be moistened sufficiently, as far as the roots extend. In sudden changes of weather—from dull to bright—the leaves will be apt to hang their heads; but always examine the state of the soil before re-watering at this season, and if moist enough, prefer sponging or syringing the foliage, to lessen perspiration, instead of extra moisture at the roots, as, in such cases, the flagging is not the result of dryness at the roots, but proceeds from the inability of the plant to suit itself to the suddenly changed conditions, as to heat and light, in which it is placed. A third essential to success will consist in *cleanliness*. Nothing like a decayed leaf should be seen. The pots should be thoroughly scrubbed with a hard brush, or with a flannel and sand. If any green or slimy matter should be on the outside, care should be taken that none of this should find its way into the pot. The surface-soil should be carefully removed, stirring up the surface left with a sharp-pointed stick, taking care not to injure the roots, and casing again with fresh, suitable soil. If the pots are very dirty, it is sometimes most advisable to turn the plant out with its ball entire, and replace it at once in a similar-sized pot; and this enables the operator to see if the drainage is all right, and to detect even a small

worm, if present. If the soil has been clogged up by bad drainage, it would be advisable to pick it away from the roots—or, at least, the worst of it—and replace the plant in a fresh pot with fresh soil that had been duly aired and warmed before using. In general cases, however, it would be desirable to defer repotting to March and April. Of more consequence, even than this attention to the roots, is the keeping the foliage free from dust and other impurities, by means of a soft hand-brush; the use of a sponge, and giving the plants good syringings with water heated a little; laying the plants so much horizontally that but little of the syringings will find their way to the soil. The water used should seldom be below 60°.

Hybernatories in which plants are merely kept during winter, whether pits, cellars, rooms, or hay-lofts, should also be closely examined. All decaying parts of roots, such as *Dahlias*, *Lobelias*, &c., should be removed, and any parts fading be dressed with lime and charcoal dust; decayed points of *Scarlet Geraniums*, in pots and boxes, cut back to the sound part, and the cut daubed with charcoal. Unless these can be privileged with light, and a place to grow in, they had better as yet be kept just as dry as would not make them shrivel away; though, if very dry, a little water may be given about the end of the month. *Fuchsias*, in such resting-places, may now be pruned in, and, if the soil is very dry, a little water should be given. If set in moss or ashes, and unless the place is very dry, naturally or artificially, little water will be wanted before starting them fairly into growth. At the same time, they must not be thoroughly dry, or the stems will perish. Of course, if the place is at all warm it will be impossible to keep them from growing, and then, if light cannot be duly given, the heat will be ruinous for all sturdy growth. *Hybernatories* for all such plants should command dryness, and a temperature ranging from 32° to 40°. Care should also be taken to provide soil for summer use; or, rather, for the succeeding summer, if a supply is already provided. As often mentioned, hazelly, sandy loam, from a highway side, answers admirably for most purposes.

GREENHOUSE.

The subject of air-giving lately occupied attention, and the principles of watering have frequently been referred to; and these, with suitable temperature and cleanliness, are the chief matters of routine. I will merely instance a few things requiring particular attention. *Azaleas* that set their blooms early, and are now plump, may soon be brought into flower in a moist temperature of from 55° to 65°, and should be brought to a warm place in the greenhouse as soon as their buds begin to open. The most forward of the others will come in succession. *Ghent Azaleas*, *Rhododendrons*, *Weigelia rosea*, *Lilacs*, and other shrubs, are easily forced after February; high success depending, however, greatly in having the pots well filled with roots, and giving bottom-heat at first. *Camellias* and *Perpetual Carnations*, supply with manure-water; forced bulbs, ditto; and bring on successions of *Narcissus*, *Hyacinths*, *Tulips*, *Jonquils*, *Lachenalias*, *Speraxis*, *Ixias*, *Oxalis*, &c. Ripen and dry off roots of *Oxalis Bowiei*. *Cinerarias* repot into larger pots intended for fine plants in May. *Calceolarias* will require similar treatment, and must be looked sharply into for Green Fly. *Chinese Primulas* supply with manure-water when wanted, and expose to all the sun possible. The double should stand at a warm end. *Ericas*, *Epacris*, and other hard-wooded plants, expose to as much air as possible when the external temperature ranges from 40° to 45°, and there are no soaking fogs. *Fuchsias* prune back, and repot the most forward. There are many modes of treating them successfully detailed in previous volumes. R. FISH.

(To be continued.)

ARBUTUS IN THE CRIMEA.—“A handsome *Arbutus* (*Arbutus andrachne*, L.) grew in a cleft of the rock, and had evidently stood there for several centuries. It had defied all the storms of nature, till at length sacrilegious hands had deprived it of some of its most beautiful branches. Ever since the southern coast has been a favourite resort of the Russian nobility, this *Arbutus* was an object of admiration. Strangers were always conducted hither to behold the glorious prospect and this splendid specimen of a tree. The deed is still more to be regretted, as it evidently proceeded from malice, for the branches were found lying close beside the stem. It is not improbable that it was committed by one of those fanatical Tartars who still continue to bear a grudge in their hearts against the Christians, the enemies of Islam, and yet are too strongly attached to the soil on which they were born to make up their minds to emigrate. The Prince ordered that the branches which had been lopped off should be left at the foot of the stem, in order that they may bear testimony to the size of the tree; but even in its present damaged condition it interested me extremely. The *Arbutus* is one of those evergreen shrubs which have no underwood, and grow on rocky ground. It is very rare to meet with any extent of ground exclusively occupied by this plant. One instance, however, where this occurs, may be seen in the lower portion of the Churuk valley, and it has a very peculiar effect. The light, brown-red bark, which peels off in strips, forms a strong contrast to the brilliant fresh green of the leaves, and white pendulous cluster of blossom, or to the fruit, resembling the strawberry in colour and form. The specimen now before us was three feet in diameter a foot above the ground, but since it had been deprived of its finest branches was altogether only twenty-four feet high.”—(*Koch's Odessa and the Crimea*.)

NOTES FROM PARIS.

THE first day of the new year is always a remarkable day in Paris; it is, indeed, the very chief of *fête* days for the Parisians, who make a point of inaugurating the *nouvelle année* with as much jovial excitement as possible. On that day we have all sorts of ceremonies, presents and presentations, with no end of friendly greetings—such greetings, too, as might lead one to suppose that those who exchange them had been separated for months. All the grand dignitaries of Church and State, the directors of public institutions, and the representatives of foreign Courts, are invited to the *Tulleries*.

New Year's-day is also a day of fresh starts, important changes, and new projects. Of this category, such as are of great public interest have been duly noticed, and commented on by those who notice public affairs only. But there are, also, one or two of horticultural interest which may have been overlooked, or considered as undeserving of attention. The first is the retirement of Professor Decaisne from the chief editorship of the *Revue Horticole*, and the second is the filling of his place by M. Du Breuil, lecturer on Arboriculture at the *Conservatoire des Arts et Metiers* in the Rue St. Martin.

As a matter of course, M. Du Breuil begins the onerous duties of his office in a long address to the readers of the *Revue*, and in which they are informed that several improvements are to be made in the management of that work. “The *Revue Horticole*,” says the new Editor, “has now been established thirty years. After several modifications, rendered necessary by the progress of horticulture, it has secured the remarkable popularity which it enjoys at the present day.” (Near two thousand subscribers.) It appears that M. Decaisne had only been editor for about two years, and that it was chiefly during his term of office that the *Revue* “became really interesting.” “This latter part of the collection presents, in short, a complete picture of all the horticultural improvements conceived during that lapse of time.” That is, I suppose, during the preceding twenty-

eight years. But this statement requires some qualification, or else M. Du Breuil has a good deal to learn yet. No cause is assigned for M. Decaisne's retirement. After explaining that he is so much occupied, both in Paris and in the provinces by the government, teaching people how to prune and train their fruit-trees, M. Du Breuil owns to the very natural weakness of being afraid to encounter the responsibility involved in the direction of a fortnightly work having such a circulation. But after thinking the matter over for some considerable time, M. Du Breuil has succeeded in overcoming all scruples, and acceded to the request of the proprietors, on condition that the assistant editors and leading contributors are continued.

Then follows a statement of the improvements to be introduced. Hitherto it has been considered enough to register in this Journal only the new facts bearing on horticulture, thus making the mistake of supposing that all the readers are perfectly acquainted with the improvements effected up to the present day. For the future, then, the *Revue* will include, besides the new facts, a description of the most important operations already adopted in practice.

The space which has hitherto been given to floriculture, and strictly botanical details, is now to be diminished, in order to leave room for notices relating to the fruit and kitchen-garden. No doubt the superb collections of fruits and vegetables sent to the Exhibition in the Champs Elysées have led to the consideration of this important feature.

Until very lately, continues M. Du Breuil, the cultivation of fruits and vegetables has been carried on in different counties and different localities only according to the requirements of local consumption. But now that railways are spreading in every direction, and affording the means of ready conveyance for all kinds of horticultural products, this state of things ought not to be continued. Those counties which, by their soil and climate, are best fitted for the production of every kind of fruit or vegetable, ought to send their produce to other counties which are less favoured by nature, and where the best returns can be obtained; more especially the grand centres of consumption, of which Paris and London take the lead. In order to afford information to distant growers as to the market value of garden products in Paris, a regular revised price current will be published in every number of the *Revue*.

Notices of new fruits and vegetables, with engravings and coloured figures, when necessary, will be given from time to time.

Such is the programme which the new editor presents as a New Year's gift to his readers; and if it is fully carried out, or, perhaps, improved upon a little, it is reasonable to expect that the *Revue* will lose none of its former prestige, whatever that may have been, by the recent change in its editorial management. This number opens with a figure and notice of *Clematis patens*, var. *monstrosa*, a large, semi-double, white flowered variety, introduced from Japan by Dr. Von Siebold.

M. De Breuil has a lengthy article on training fruit-trees in a spiral manner round a column-like arrangement of five stakes driven into the ground, and kept in position by hoops at certain distances. This is a good and simple plan; but it is not new, for, if I recollect aright, the same thing, or something like it, was noticed years ago in London's *Gardeners' Magazine*, or his *Encyclopædia of Gardening*. The column, or rather cylinder, formed by the stakes is, according to the directions, about two feet in diameter, and from seven to nine feet high. Five stakes, at least, are recommended. Three hoops are mentioned, but two ought to be quite sufficient; at least, there does not appear to be any necessity for one near the bottom. M. Du Breuil thinks it probable that a light iron cylindrical frame would be cheaper than wood, and, on the whole, more elegant till the trees had made some progress. The operations of planting, and training, and pinching back, and pruning, are then treated of, as if they had never been treated of before, and with the utmost nicety and precision. All the varieties of Pears, M. Du Breuil says, which ripen their fruit readily in the open ground, can be grown in this manner, either grafted on the Quince stocks, or otherwise, as is practised for the other modes, according to the vigour of the sorts or the fertility of the soil. The same remark applies to most kinds of Apples as well as stone fruit.

This manner of training is called, in French, *en cordon spirale*. Its chief advantages are said to be, first, uniform or regular growth in all the branches, an object of great importance, but which is very difficult of attainment with the ordinary modes of training. With the spiral mode, every shoot bears fruit-spurs, and the whole produce of the annual growth economised; while, with other forms a third of every new shoot is sacrificed at the winter pruning, in order to produce fruit-spurs. Second, the fruit are completely exposed to the light, and less shaken by the wind than on other trees. Again, in very small gardens the pyramidal form of training takes up too much room, and, consequently, the number of varieties must be limited. Under such circumstances, people sometimes adopt the upright column-fashion of training. But that arrangement of the branches has the serious drawback, especially in rich, fertile soils, of producing too much gross wood, which is not favourable to the growth of fruit-buds. Now, the spiral form has all the advantages of the other, with regard to the little space of ground required; for the cylinders may be placed at about four feet apart, and as only a certain length of shoot is maintained, the sap is not too much excited in the growing spurs, which are thus easily induced to fruit, and that, too, even in the richest soils.

In considering these different points, M. Du Breuil arrives at the conclusion that the spiral form may be generally adopted with advantage; and, in small gardens, it may be substituted with equal convenience for the old column-like arrangement.

Of late years we have had, in London and elsewhere, some new attraction in the form of American-gardens, Rose-gardens, Hollyhock-gardens, &c.; but M. Jamin, the great fruit-tree nurseryman, of Paris, has lately occupied himself with the formation of a fruit-garden—not an orchard, or a stiff and formal kitchen-garden, but *un jardine d'agrément*, that is, an ornamental English pleasure-ground of fruit-trees, in clumps and borders, combining, to the fullest extent, the useful with the agreeable; for the whole is freely interspersed with flowers and flowering shrubs, Roses, Hollyhocks, Azaleas, &c. The fruit-list includes every kind, from Strawberries and Gooseberries, up to the choicest Peaches and Apricots. Every form of training may also be seen.

M. Lemarchand De La Faverie, an amateur, residing near Paris, has given an interesting account of some experiments, in which he has for some time been engaged, in growing Melons on espaliers along the walls of his plant-houses. The system adopted by this gentleman, who seems not to be aware that it has ever been tried before, is fully described in Mr. T. Moore's book on Melon and Cucumber culture, published by Groombridge, Paternoster Row. The sorts grown by M. Lemarchand De La Faverie are, Prescott's *Cantaloup*, *Noir de Cormes*, *Orange*, *Muscattello*, and *Chito*; but all the other sorts are equally good for this purpose, though, of course, it would be necessary to prop up the larger fruit.

The articles accompanying the usual figures of plants are now signed "Victor Borie." The second number contains a notice of *Quercus vitifolia*, and it is stated that this plant, so far as M. Borie is aware, has not yet been grown in the open ground near Paris. At the Museum, that is, the Garden of Plants, it is kept in a low, dark house, where, however, it flowers freely every year; but we have reason to believe, says the writer, that with plenty of light, and shelter from the north and north-east, it would succeed equally well in the open air. But the roots should be well covered up in winter, or placed in a house at the end of autumn. This supposition becomes almost a certainty, applicable to every part of France where the winter is generally mild, as the departments of the south and east.

M. Dupuis, Professor of Agriculture at the *Ecole Impériale*, of Grignon, says, in reference to the *Aponogeton distachyon*, that it is generally considered as a warm greenhouse plant, which statement may be true in northern latitudes; and in any case the plant may be placed with advantage in open tanks in stoves or aquariums. But it has been proved that this aquatic will thrive very well in the open ground, and even support a very low temperature. For instance, it did not sustain any injury last winter (1854—5) at Montpellier, when the ice on the ponds was about nine

inches thick (15 centimetres). MM. Martins, who noticed the fact, considers that the ice forms an excellent covering. He explains it in this manner:—The new layer of ice which is formed every night during frost, under the preceding, detaches or extracts a certain quantity of heat, and the frost cannot reach the rhizome which is sunk in the ground. The ice stops the passage of the cold, and thus deep water is the surest protection for the rhizomes from frost.

The following new vegetables have been lately noticed:—

Céleri-rave d'Erfurt (Erfurt Celeriae).—This is altogether smaller than the common variety, and is distinguished for the cleanness of its root and its earliness.

Betterave turnep rouge hâtive.—This variety has been received from the United States, and is remarkable for its clean, round, flat form. The skin is smooth, brownish-red, and the flesh deep red. It is an excellent variety for table, very early, and will be found superior to the old variety. It may be called, in English, for want of a better, or at least more convenient, name, Early red turnip-shaped Beetroot.

Harricot beurré à grain blanc.—The variety called *Harricot beurré à grain Noir*, or *Harricot d'Alger*, has been grown for some years in the environs of Paris. This new variety has all the merits of that, and differs chiefly in having white seeds. There is, also, a white-seeded variety, which is but seldom grown.

Laitue hâtive de Simpson (Simpson's early Lettuce).—This is a large and quick-growing American variety, having numerous loose, broad leaves. It is very crisp and juicy, but it does not fill well, that is, it does not take heart. It comes into season about the same time as the *Laitue de Versailles*, but it grows up quicker if sown at the same time.

Melon Cantaloup d'Alger.—This, though not a new variety, is not so generally cultivated as it ought to be. M. Gontier, of Montrouge, has grown it for several years, and he has proved that it is a most abundant bearer, and very easily managed. The fruit is spherical, and about six inches in diameter; the skin is green streaked, and much blistered; the interior is red, juicy, and well-flavoured.

Oignon jaune de Danvers (The Danvers yellow Onion).—This variety takes its name from the town of Danvers, in the United States, whence it has been imported. It is nearly regularly spherical, large, and of a yellow colour; its leaves are very small. It is eight days earlier than the *Oignon blanc hâtif*. This variety is recommended for its good form, its earliness, and the length of time it is in season.

Radis demi-long blanc.—This is a pretty variety, supposed to have been raised by a market-gardener near Paris. It is stated to have all the qualities of the rose-coloured variety.

I have received a full report of the recent meeting of the Horticultural Society here; but it is too long to give at present, and I must reserve it for another time. I may just notice, however, in closing the present article, that four of the exhibitors have been decorated by command of the Emperor with the Cross of the Legion of Honour. These are MM. Morel, Andry, Jamin, and Lepère. Upwards of 160 awards have been made, and in the list of exhibitors who have received first-class silver medals I find the names of Standish and Noble, of Bagshot, who, it would appear, were the only contributors from England.—P. F. KEIR.

SALE OF THE LONDON HORTICULTURAL SOCIETY'S HERBARIA.

THIS sale was conducted by Mr. Stevens, at his Auction Rooms, 38, King Street, Covent Garden, on the 29th of last month. The very title of the catalogue is mournful, and the result is still more so, for the fruits of so many years of toil, and of such worthy, and, in too many instances, ill-used men, realised no more than £262.

The following is a copy of the entire catalogue, with the price of each lot, and the names of the chief purchasers:—

A Catalogue of all the valuable Collections of Dried Plants, which have been formed by the Travellers employed by the Horticultural Society of London, during the last forty years. These Herbaria consist of the Collections formed by Douglas, Hartweg, Fortune, Forbes, Geo. Don,

Parkes, Potts, and others, in North America, Mexico, Peru, Brazil, Chili, and other parts of the globe.

1. A miscellaneous collection, from SWITZERLAND, named; the SOUTHERN STATES OF N. AMERICA; and NEW HOLLAND—3 parcels. 10s.
2. Sundry parcels of Lichens, Mosses, and other miscellaneous plants—10. £3 3s.
3. EAST COAST OF WEST GREENLAND, HAMMERFEST, SPITZBERGEN, RED RIVER, and HUDSON'S BAY—partly named—a small parcel. £1.
4. MELVILLE ISLAND—a small parcel, extremely rare. £1 6s.
5. ARCTIC AMERICA—collected by Sir John Richardson, named. £2 16s. (Paris Museum.)
6. Four miscellaneous parcels. 10s.
7. NORTH-AMERICA AND CALIFORNIA—collected by Douglas. All glued down on fine paper, and for the most part named. From these plants, in part, the Flora Boreali-Americana of Sir William Hooker was drawn up. The number of species is about 500—15 parcels. £32. (British Museum.)
8. CALIFORNIA—Hartweg's collection. £9 10s. (Bentham.)
9. ——— collected by Hinds, and published in the Voyage of the Sulphur. £1.
10. MEXICO—Hartweg's collection; this fine set is the original from which Mr. Bentham's *Plantæ Hartwegianæ* were described, all slightly glued on fine paper—12 parcels. £11. (Bentham.)
11. MEXICO—Butleri's plants—found on Orizaba; good specimens, loose, about 1000 species—9 parcels. £28. (Paris Museum.)
12. UNITED STATES—the plants gathered by Douglas on his first visit to N. America—10 parcels. £1.
13. SANDWICH ISLANDS—Macrae's collection—4 parcels. (British Museum.)
14. STATEN ISLAND and MONTEVIDEO—collected by Mr. Webster in the voyage of the Chanticleer. 15s.
15. TRINIDAD—collected by George Don—8 parcels. £4. (Bentham.)
16. JAMAICA—ditto—2 parcels. £1 12s.
17. GRAND CAYMAN—ditto. £1.
18. ASCENSION—ditto. 16s. (Pamplin.)
19. HAVANNAH—ditto. 10s. (ditto.)
20. ST. DOMINGO—collected by Mr. Charles Mackenzie—a good set. £1. (Pamplin.)
21. BRAZIL—collected by Macrae, in the neighbourhood of Rio Janeiro and St. Catherine's—5 parcels. £2. (Pamplin.)
22. ——— collected by Forbes, near Rio Janeiro—9 parcels. £1.
23. ——— collected at Maranhao, by George Don—6 parcels. £2 15s. (Bentham.)
24. ——— collected at Bahia, by George Don—4 parcels. £1.
25. ——— collected near Rio Janeiro, by Douglas—2 parcels. £1.
26. CHILI—a fine set, from Macrae—5 parcels. £9. (Paris Museum.)
27. CHILI AND BRAZIL—sundry duplicates, collected by Macrae—2 parcels. 19s.
28. CHILI—collected on Juan Fernandez, by Douglas. £2. (Bentham.)
29. EAST INDIES—a fine set of plants, named, dried by Potts in the Botanic Garden, Calcutta—9 parcels. £1 1s.
30. ——— a large collection, named; distributed by the East India Company—12 parcels. £3. (British Museum.)
31. ——— a large set, from Boottan; forming part of Griffiths' collections, dispersed by the East India Company—8 parcels. £11 10s. (Paris Museum.)
32. CHINA—Fortune's plants, from Hong Kong, Chusan, and other places. £9 5s. (Paris Museum.)
33. ——— a small collection, formed in the neighbourhood of Macao, by John Reeves, Esq. £1 5s.
34. ——— collected by Parkes—17 parcels, 4 of which are marked duplicates. £4 10s. (Bentham.)
35. ——— collected by Potts. £1 1s. (Dr. Daubeny.)
36. ——— a small parcel of specimens of the Tea plant, collected by Fortune. 11s.
37. CEYLON—collected by Macrae. An extensive collection, in large-sized cartridge paper, not named or glued down—9 parcels. £21. (British Museum.)
38. JAVA—a small collection, formed by Parkes. 10s.
39. PRINCE OF WALES' ISLAND—sent home by Governor Phillips. A very considerable collection, arranged in natural orders, and to a great extent named—14 parcels. £25. (Paris Museum.)
40. CAPE OF GOOD HOPE—collected by Forbes, a fine set of plants—3 parcels. £1.
41. DELAGOA BAY—collected by Forbes, another fine set—3 parcels. £9. (Paris Museum.)
42. ALGOA BAY—collected by Forbes—3 parcels. £5. (British Museum.)
43. Miscellaneous duplicates, Cape of Good Hope, Delagoa Bay, Sandwich Islands, and Chili. £1 1s. (Pamplin.)
44. SANTA FE DE BOGOTA—collected by Goudot—3 parcels. £3 10s. (Pamplin.)
45. ST. HELENA—collected by Macrae. £1.
46. EAST COAST OF AFRICA—collected by Forbes. £5. (Bentham.)
47. ——— collected between 6° and 8° S. lat., by Mr. Mont. Martin. £1 1. (Bentham.)
48. MADAGASCAR—collected by Forbes. £2 10s. (British Museum.)
- 49* NEW HOLLAND—collected by James Brogden, Esq.—2 parcels. £1.
49. PERSIA—a set of specimens, from Tabreez, and formed during a journey to Tiflis through Armenia to Trebizond, glued upon fine paper. £1 10s. (Dr. Hooker.)
- 49*. CAPE DE VERD—collected by G. Don, at St. Jago. £1.
50. MADEIRA and TENERIFFE—collected by Forbes—2 parcels. £1 1s.
- 50*. CAPE DE VERD, St. Vincent. 12s.
51. ——— collected by Forbes, at St. Jago. 18s.
52. MADEIRA—collected by George Don. 14s.
53. TENERIFFE—collected by George Don—2 parcels. 18s.
54. WEST COAST OF AFRICA—George Don—9 parcels. This collection is named by the authors of the *Niger Flora*, and may be regarded as typical of that work. £12 10s. (British Museum.)

CULTIVATION OF THE BLECHNUM BOREALE, AND OTHER HARDY FERNS UNDER GLASS.

BEING called upon to give a few hints as to the treatment the *Blechnum boreale* requires under glass, I with pleasure comply with that request. I do not consider myself capable of teaching many, although I think there is a great deal to be learned by many, and I might not be far out were I to say, by *all* who have taken a delight in this large and beautiful tribe of plants; a tribe not the less interesting on account of its immensity; for I think whoever commences a collection of this family of the vegetable kingdom will have a continual desire for an enlargement of his collection, and as the collection increases, so will the pleasure. Having obtained some plant that has been puffed up, what a disappointment occurs to find, when it flowers, that it is no better than many older varieties you have by you. This disappointment occurs not so often with Ferns as with many other things. They are grown with much more certainty, so that the cultivator may add to his collection with very little fear of being disappointed, as the beauty is not in a variety of colour and shape of flower, but in the shape and construction of the plant itself, and with the elegant and graceful habit of the various species. Although some Ferns very closely resemble each other in appearance, yet, when a close examination is resorted to, not only may be seen the difference, but, also, the hidden beauty of many species, which will amply repay the inspector for the trouble. Each of the species seem to prefer and inhabit different positions and localities. We have thereby a very good guide for the arrangement of them upon our rockwork. I will just mention a few instances to illustrate my meaning.

The *Osmunda regalis* we meet with in all its royalty, producing its noble fronds from the surface of some marshy place, which is a clear proof that it is a lover of moisture; not being very shy of the rays of the sun. The *Asplenium Filix-mas* we find sending forth its bold and graceful forms from some sandy bank, shadowed by a row of trees, or by a hedge. Here is a difference—the one preferring moisture more particularly; the other, rather the shade, and not so much moisture. The *Polypodium vulgare* gives us an instance of one taking its position something between the two former, covering the base of some noble tree with its enlivening evergreen fronds, and feeding upon the decaying parts; but oftentimes exposed to the powers of the sun. The *Pteris aquilina* sending its piercing roots deep into some loamy soil, and unfolding its spreading fronds over the surface of an open common, or heath, exposed to the full power of a burning hot sun, which tells us that it prefers a deep, moist soil. Another example we may find in the life of the *Asplenium ruta muraria*, which we see in all its interesting beauty, flowering and almost covering the face of some old eastle or sacred edifice (which itself is falling bit by bit to the ground), and feeding upon the mouldering portions of the brick and mortar; and, lastly, I will refer to that minute, deeply interesting Fern, the *Hymenophyllum Tunbridgense*, which, in all its cheering simplicity, is met with spreading over the surface of some solitary rock, where many would think it almost impossible for any living plant to survive, being exposed as it is to the rays of a mid-summer sun.

These are a few instances of the native portions of some of those British Ferns which are more generally known, and will suffice to show the different treatment or position they require. But if grown as greenhouse, or stove-plants, the treatment will differ, of course; and, as my mode of treatment is the question at hand, I will here give it as concisely as I can. I have cultivated many other British species, besides the *Blechnum boreale*, in a greenhouse or stove temperature. The principal difference the different species require being in the compost and amount of moisture.

For the *Osmunda regalis* I use three parts turfy-peat and one of sandy-loam, with a free admixture of sand. For *Asplenium Filix-mas*, on the contrary, I use three parts of the sandy-loam with one part peat, with sand, because it requires less water than the first. For the *Pteris aquilina* three parts loam, and one of coarse leaf-mould, with sand; and when grown in this compost it makes a very interesting pot plant. For the *Polypodium vulgare* three parts leaf-

mould, with one part sandy-loam, and a free admixture of sand. For the *Asplenium ruta muraria* one part leaf-mould, one part sandy-loam, and two parts soft brick and mortar broken very fine. The *Hymenophyllum Tunbridgense* requires more care in potting than any of the preceding species. The pot being half filled with very fine crocks, the remaining surface is filled within half-an-inch of the top with powdered sand-stone, upon which the root of the Fern (being in cakes) is very carefully imbedded in an equal mixture of powdered sand-stone and loam, being pressed firmly to the surface, a little dry sand is sprinkled over the whole, to fill up any crevice that may remain, when, if the pot is set in a pan of water, enough moisture will ascend to supply the plant with what it receives from the moist temperature.

The question still remains to be answered in favour of the *Blechnum Boreale*, which I procured from its native abode early in the spring, potting it firmly in a compost of three parts peat, two parts of loam (each very fibry), and one part of leaf-mould, with a free admixture of sand, using plenty of drainage. When done, the plants receive a watering to settle the whole, and are then removed into a close temperature of from 45° to 50°. As soon as a free exposure of the fronds is observed, they may be either removed into a little warmer or a little cooler temperature, accordingly as convenience or taste may be, but not to be over supplied with water. In the morning of clear days in the spring, and in the evening during the summer months, syringing will be generally sufficient. When the temperature becomes very much increased during the spring months air must be given according to judgment, giving a little for an hour or two in the middle of fine days; but all external air being excluded, as far as possible, during dull, heavy weather. During the summer months, fires being discontinued, air must be given during the day, but shut up early in the evening, if in a warm house or stove; if in a cold greenhouse, air must be left on all night. In either case, whether in a stove, or greenhouse, I have always found a shading effected by a coat of green colouring inside the glass quite sufficient, and, in fact, they do better under this shade than under any other.

At the decline of the season I gradually dry off the deciduous species, and give them a rest (not, of course, allowing them to become quite dry) by removing them to a cooler place. Many of the evergreen species are greatly benefited by a similar treatment.—W. REEVES, *Highgate*.

THE FORM OF HOTHOUSES.

PERMIT me to offer a few observations on the extract you have taken from "The British Year Book for the Country, by C. McIntosh, Esq., and T. Lindley Kemp, M.D."

As to the construction of hothouses on the old plan of strong rafters, sliding-lights, &c., being the very worst that could be adopted, no one will attempt, perhaps, to deny; but under former circumstances, when glass was very dear, that plan served its purpose, and has had its day; though no rational man would think of putting up a house of that description, and glazing it with squares six inches by four inches, in the present day. But to say that a lean-to house is the worst possible for either the admission of the greatest amount of light, or the equalization of solar heat, will admit of a little difference of opinion.

What objection can there be to a lean-to roof against a wall facing south, or a point or two to the east of south, with a plane surface, the principal rafters three inches by two inches, three feet six inches between, sash-bars three inches by one inch, eleven inches between, ventilation in front, and at the top glazed ends, the stoke pit, sheds, &c., directly behind?

Suppose such a house erected, and nothing to obstruct the sun's rays from striking it directly on his emerging from the eastern horizon, in what direction, and on what part of the house would the first rays strike? Would they not strike the end of the house horizontally till he was quite above the horizon, and then obliquely, till, attaining his meridian height, the rays would fall direct on the surface, be that surface at any angle whatever? The gnomon of a sun dial would prove that to demonstration. Then, how

is it possible a greater amount of light can be obtained? In the construction of a lean-to roof, as before described, a less amount of light would be obstructed than by covering the same space with a ridge-and-furrow roof, try where you will; and as to a more equal diffusion of the sun's influences being obtained by the span-roof than by a lean-to one, where will it be found in practice? Supposing a span-roofed house, and a lean-to one exactly the same dimensions, built parallel with each other longitudinally east and west, facing direct south, what advantage does one possess over the other?

As to the immense saving of fuel effected in the span-roofed house over the other, how is that? Will it be asserted, that a structure composed of all glass, or as nearly so as may be, can be heated, and the heat maintained, at a less cost for fuel than a lean-to one against a wall? The latter possesses one advantage, at all events; namely, the back wall absorbs the heat during the day, and gives it off again during the night; whereas, glass, it is well known, is not an absorbent of heat; consequently, such a structure will cool much sooner, and, therefore, necessarily cannot take less fuel to keep up the internal temperature.

As to the "prolongation of the days" by having a span-roof, perhaps, on reflection, that will be found to be incorrect, or, at least, not intended to convey the meaning the words would infer. What value are the sun's rays after about half-past three o'clock P.M. during the four winter months, November, December, January, and February, even supposing one-third to be clear days, which they rarely are? Then, which of the two houses will have the advantage of maintaining an equal temperature at the least expense; the one against a well-protected wall, or the one of glass completely exposed?

Again, suppose a house to be erected, as before stated, as nearly all glass as possible, on a terrace, where would the stove pit, chimney, &c., be placed, so as to heat it? Certainly not at the end; it would not be very ornamental, looking from a drawing-room window, to see a chimney shaft pouring forth volumes of black smoke; for even if coke were used such would be the case at times, to remedy which would be attended with considerable expense, and loss of heat also, that would very much diminish the economy in erecting such a structure. Economy is now the order of the day, combined with efficiency, except to those to whom money is not an object.

As to a span-roofed house containing double the number of pot-plants, in better condition, than a lean to one of the same dimensions, in what condition would the plants be placed on the north side of a stand under the span-roof, supposing they were not to be moved? or, if such a structure were erected for the growth of Grapes, or Pines, would either flourish so well under the north as under the south?

There is, or, at least, was, a Pine pit at the Gardens at Hampton Court Palace built exactly as described, the fireplace at the east end; but there was no comparison in the appearance of the plants on the north side to those on the south side.

After all has been said, and tried, and done, it is impossible, to quote the old adage, "to make the sun shine on both sides the hedge."

A span-roof casts little or no shade on the surrounding grounds; if not, the plants do that are in it, or it must be invisible altogether. If it possesses such very desirable advantage, how is it they are not now universally adopted in practice? Is there one span-roofed Grapery in ten throughout the whole length and breadth of the land? There are many good Grape-growers to be found, and their grapes are generally grown in lean-to houses. I hope some of your readers, or correspondents, will be able to elucidate the subject more clearly, and that, at all events, the discussion of the subject may elicit the truth.—JOHN PANNEL.

GARDEN HERBACEOUS PLANTS.

At an earlier period in gardening history we find that herbaceous plants constituted the principal ornaments of the flower borders. Every garden of importance possessed

its collection, and considerable care was bestowed on their cultivation.

An entire revolution has now taken place by the introduction of bedding-plants; their capability of continuing in bloom for the most part of the summer, together with their compact habit, and facility of propagation, rendering them admirably adapted for forming masses of distinct colouring, which, by skillful arrangement, produce a pleasing effect.

The former having been thus superseded, it is natural to suppose that the more delicate species would soon disappear, leaving behind them, in most cases, only the coarser and least attractive, which tends to retain for them but few admirers.

There appears, however, in the meantime, a reviving taste for the re-introduction of the finer varieties of those interesting plants, although, as I have stated, our present decorative plants are all that is desirable in making a display; still, the species employed are so limited, that in vain may we look to a modern flower-garden for that infinite variety of form, structure, and essential distinction, in which nature in all its departments so much abounds; whereas, a well-selected collection of herbaceous plants might exhibit almost every type of the vegetable kingdom, and deserve to have a place assigned for them in every garden; where, instead of detracting from the more ornamental portion, they would tend to enhance the interest of the whole.

Many sorts, I have admitted, are coarse and uninteresting, except to those whose cultivated intellect perceives strange beauty in the things which others idly pass by; but those it is our present purpose to avoid; and, with a view of assisting the "amateur," I shall occasionally, through the medium of these columns, refer to a portion of the sorts most worthy of cultivation, assuring him, that should my remarks fail to afford any information, my recommendations shall not disappoint him.

Even at this desolate and gloomy season, when it is almost hopeless to search for Flora's treasures, except under the crystal roofs of greenhouses, we have one most interesting genus, which, fearless of winter storms, is just bursting into beauty, telling us that they are the "flowers of an ungenial clime," and to these "nurslings of the storm" we shall now direct our attention.

HELLEBORUS (*The Hellebore, or Christmas Rose*).—Ornamental plants of easy culture, thriving in any common soil, and preferring a situation partially shaded, being mostly natives of cold regions, such as Siberia and Hungary. They are all perfectly hardy; but, in order to bloom them in perfection, they require the shelter of a frame, or hand-glass, when in flower, to protect their blossoms from the severity of the winter. When taken up and potted they are highly ornamental for the greenhouse. The following are the species most worthy of cultivation:—

H. ATRORUBENS (Syn. *Abchasicus*).—Stems about one foot high; many-flowered; flowers dark purplish-crimson. This is decidedly the finest of all Hellebores, and cannot be too highly recommended. In bloom from the middle of January to the end of March.

H. LIVIDUS.—Flower-stems about one foot high, bearing numerous flowers of a dull purplish-green. Its chief recommendations are its peculiar glaucous, fine, evergreen foliage, and striking appearance of the plant.

H. NIGER (*The Christmas Rose*).—A plant so well known that it requires no description. It commences to send up its blossoms in autumn, which are at first pink, changing to white, and latterly to green. In flower during the winter months.

H. NIGER, var., ANGUSTIFOLIUS.—Leaves smaller than the preceding, cut into narrower segments, and is, in some respects, superior. The flowers are nearly pure white, large, and conspicuous.

H. OLYMPICUS.—Flowers light purple, resembling *atro-rubens* in general appearance, but having larger foliage, and more erect flower-stems.

H. OLYMPICUS ALBUS (Perhaps the *vernalis* of some catalogues?).—Flowering-stems about one foot high; flowers creamy-white, large, and showy. A desirable plant, resembling the following, but quite distinct.

H. ORIENTALIS.—Flowers large, nearly pure white, closely allied to the last. It blooms somewhat earlier, and the plant seems a little more delicate.

H. PURPURASCENS.—Flowers purple, resembling *Olympicus*, but quite distinct. Before opening, the flower-buds seem to be covered with a peculiar bloom of deep plum colour.

The remaining species are *H. dumetorum*, *fetidus*, *odorus*, *trifolius* (syn. *argutifolius*), and *viridis*; these, having bright green flowers, cannot be recommended for the select collection, but, on account of their fine evergreen foliage, are admirably adapted for planting in the front of shrubberies, or by the sides of walks, particularly in romantic and sub-alpine situations.—JAMES RAE, *Edinburgh*.

ROOTING CUTTINGS OF BEDDING CALCEOLARIAS, AND WINTERING THEM.

TAKING Mr. Beaton's hint, I gladly contribute my experience towards making Floriculture an easier, a more certain, and, consequently, a more delightful recreation and study. Four years comprise the extent of my gardening operations, so you must not expect much; but in my situation I am obliged to look sharp after my stock of bedding-plants, to winter them in the least possible spaces, and without much fire-heat. Such plants as Verbenas, Salvias, Ageratums, Lobelias, Calceolarias (the better sorts), I have carried through this last winter, so far, in two-light boxes, or frames, and have lost very few.

I find Yellow Calceolarias winter best under hand-glasses, close under some sheltered wall, where the sun never reaches in winter, but which is safe from winds and not bleak. About the first week in October prepare your border, by making it light and sandy, scattering a little river-sand over the surface; then, with your hand-glasses, mark their size upon the sand; take the cuttings from plants in exposed situations, as being better able to withstand the winter than vigorous and larger cuttings; dibble them in as thick as you please within the mark made by the glass, giving them a good soaking of water. When dry, cover them close with the hand-glasses, and they will need little else, except that in very damp weather, if they become loaded heavily with dew, it would be advisable to give them air, but not till then.

I have been very successful this way for three years, scarcely losing a cutting, while those I planted in the full sun, under hand-glasses, have all perished, and while those in pots, in the frame, have suffered severely through the damp. My hand-glass plants have remained uninjured, though frozen as hard as stones for a week together (as they must have been this winter and the last). I have had plenty of plants for myself and some for my neighbours through this method; and any cottager may have an abundance of Yellow Calceolarias, who owns a hand-glass and a foot of ground having a north-eastern or south-western aspect. They do equally well in pans, or boxes, if kept moist till they are rooted, and this adds a facility for protection in severe weather; but I believe hand-glasses far preferable to either greenhouse or frame, to say nothing of trouble, damps, watering, &c.

To winter Calceolarias in a greenhouse is to doubly earn them, when you can have them by thousands for so very little trouble. Mine are now as green as a leek, and have not had a drop of water since the beginning of November. I shall pot them into thumb pots about the middle of February, and put them into a frame, watering them well and taking advantage of sunlight, and closing it tight early in the afternoon. The pots will soon be filled with roots. Then I place about four inches of soil on the bottom of a frame, turning the plants out into this soil, six inches apart, stopping them in to make them bushy, and then I shall plant them when I want them, cutting them out in squares with the roots entire, or nearly so.

I find this the best method when fine plants are wanted. In fact, you may grow them twice the size turned out in a frame as you can by leaving them in pots. Instead of in a frame, they may be planted on some sheltered border, about the beginning of March, six or eight inches apart in the open ground, using such protection as may be at hand.—WM. ELLIOTT, *Gardener to R. Thorneville, Esq., The Abbey, Burton on Trent*.

FANCY RABBITS.

I DO not pretend to be much of a Rabbit Fancier, but as many of the subscribers to THE COTTAGE GARDENER probably keep Rabbits, and, as I have not seen much about them in its pages, I beg to offer a few remarks on the properties of the fancy sorts; though I am aware they will be deficient in many respects, they may, possibly, lay the foundation for others more experienced than myself to write more fully on the subject, by which means these beautiful and very useful animals may become more generally kept, and bred to a higher standard than at present. Such are my wishes in penning these remarks.

Naturalists are rather divided in their opinion as to whether the fancy Rabbit is the direct domestic descendant of our common wild sort, which owe their origin, I believe, to the north of Africa, though now naturalised nearly all over the world; or if our fancy kinds owe their peculiarities to crossing with other original wild kinds from other countries; but, without further troubling my readers with the theories of naturalists, I shall at once proceed to give as precise a description of the points of a fancy Rabbit as I am able.

The various Rabbit clubs differ somewhat in their rules and points, but, I believe, that all agree in the main, that is, that the ears constitute the first and chief property. The properties of the ears are, I believe, four in number, viz., length, breadth, direction or fall, and the fineness of their texture. The longer the ears the better. No Rabbit is thought worthy the title of a fancy Rabbit if its ears do not measure fourteen inches measured across the head from tip to tip. Twenty-two inches is the greatest length I have heard of. In breadth, I believe, six inches have been attained. The direction, or fall, is called the lop. The ears should fall down evenly on each side of the head, just passing the hinder corner of the eye, with the inside or concave part turned inwards and obscured from view. These properties are often bred to great perfection, and some think them sufficient, but the true go-a-head fancier will not rest satisfied here. The next point is carriage, or shape; thus the head should be carried low, flat on the top, and the eye must be full, large, and prominent; the withers, or shoulders, low, and the back rise in a high arch; under the chin the skin must be extended in the form of a cushion, which is called the dewlap, and is, when large, considered a great beauty; the front legs, too, must be straight and not bent, as is too often the case in fancy Rabbits.

The third point is colour, or marking. This point is very various, and depends much on the taste of the breeder. Some are satisfied with a plain or whole coloured Rabbit; that which nearest resembles the common grey, being least esteemed and the more rare and most difficult to be procured is, consequently, the most valued. The whole colours may be placed as follows:—The common Grey, next Sooty-fawn, the White, Sandy, Black, and Blue the most admired. Others require their Rabbits to be pied, or white, spotted with any of the foregoing colours, always provided that the spots on each side are exactly similar; while the true aristocratic marking is what is termed the Butterfly-smut. This must, on a white ground, bear the following marks:—(a smut signifies a dark spot on the nose, and may be either double or single.) The Butterfly is formed by two dark patches of circular form, one on each side of the nose, which have some resemblance to the wings of that insect, while a dark streak down the nose forms the body. In addition to the Butterfly, the ears must be dark. A large, even patch of the same colour on the high-arched back is called the saddle, and a dotted line of small spots passing over the neck and joining the saddle on each side is called the chain. The upper side of the tail, or scut, must also be coloured to complete its marking. The white ground must be as clear and free from spots as possible.

Size, or weight, and early maturity are also points with Rabbit fanciers, consequently, of two otherwise equally good Rabbits, the largest claims pre-eminence. This property is but little regarded, and only used as a casting vote. From ten to fifteen pounds is a good weight for a full grown fancy Rabbit.—B. P. BRENT.

VARIETIES OF RABBITS.—The common wild Rabbit is too familiar to every one in this country to need a description

from me. The common tame Rabbit is also well known, though it is gradually giving way to the fancy sort, and assuming, in various degrees, the long or drooping ears, lengthened form of that variety which seems destined in a short space of time to supersede them.

The common Rabbit of Germany closely resembles our old fashioned domestic kind in its short, thick form; their colour is various, as grey, white, black, or sandy, and occasionally pied. The white marking usually (as far as my observation went) consisting in a collar, and not unfrequently one of the fore legs, the rest of the body being coloured.

The Belgian Rabbits come next in order, and a very fine breed they are, both in respect to their size and the flavour of their flesh. Their live weight averages about fifteen pounds. In colour they are what are termed hare-coloured; that is, a grey, but rather more of a reddish-brown mixture than our common grey Rabbits, and having darker points to their ears. There are some few black and pied, but are mostly esteemed when wholly of a slaty-blue.

The Angola, known also as the French Rabbit, is remarkable for its long and beautiful silky or woolly coat. These are sometimes up-eared, at others, lop-eared. Their colour is various, though the pure white are most admired. Some persons have bred them exclusively for their skins; and others regard them, when pure bred, as fancy stock, and set great value on them. I believe there is also a large breed brought from Spain.

Mr. Nolan, of Dublin, some time back advertised some, which he called Patagonian Rabbits, averaging twenty pounds weight each. In some parts of Texas, I have read, there are very large Rabbits, and also on the west coast of Africa, so large as to be compared in size to a sheep; if, however, these are really Rabbits, or have merely received that name from some fancied resemblance, I must leave to some one who has had an opportunity of determining. I have, however, been informed that some Rabbits that were known to have been turned out on an island, I forget where, about three centuries back, with the idea of their being useful to ships crews visiting that neighbourhood, had so degenerated as scarcely to exceed a large rat in size.—R. P. BRENT.

QUERIES AND ANSWERS.

GARDENING.

CAMELLIAS SHEDDING THEIR FLOWER-BUDS.

[There have been many complaints of this during the winter,—chiefly among amateurs, and, perhaps, more particularly among ladies. From several of our fair friends I have had long details of what they considered to be the reason, and what the gardener assigned to be the reason, and asking me to fulfil the somewhat onerous task of deciding who was in the right; which I generally managed to do, by assuring them that, bating a few little matters, both were in the right. In fact, simple as the mere fact of the shedding of these buds is, it is produced by several causes instead of one; and it is difficult to decide which of these causes operate, in any particular instance, without being acquainted with all the antecedent circumstances and present position of the plant. I do not pretend, myself, to know the exact or particular cause of this disappointment. The alluding to the matter thus prominently may bring out the opinions of others; but I will mention the circumstances in which, as it seemed to me, the evil was produced; having no doubt that many friends will compare notes, and give our readers the benefit of their practice and observation. One thing is pretty certain; that when every thing about the plant is just as it ought to be, the disappointment seldom appears. The first cause I would allude to, is the *not thinning the flower-buds*. Some kinds produce quite a cluster of buds at the points of the shoots, and these should be as carefully thinned out as a bunch of grapes, allowing only as many to remain as can get room to expand. Without this, when they swell freely they dislodge each other, and thus failure will proceed from superfluity.

A second reason is, *insufficient and improperly administered waterings*. Here is an instance. Mrs. Anxious sees the buds drop, day after day—the weather has been sunny, and

the plant has been duly watered, to meet the demands of perspiration, and the pot is well filled with excellent roots. The soil *does seem* moist enough—and, as the doctor, you cannot divine the ailment of the patient; but suddenly you strike the pot with your knuckles, and the clear, reverberating sound rings in your mind the cause of the evil; confirmed, when, on lifting it, you find it lighter than it ought to be to be moist. There is nothing like seeing, to cause believing; and, turning the plant out of the pot, it is found that the *duly waterings* have got down about an inch-and-a-half, and all beyond is almost as dry as dust. In such a case, it is better to set the pot with the roots in a pan; the water rising a couple of inches, or less, instead of immersing the pot at once; as the sudden extreme would be as mischievous as the dryness. Another error in watering, especially if the drainage is not very perfect, is giving it abundantly in dull weather, when there is no natural stimulus to cause the moisture to evaporate, and the buds are thrown off by a gorged repletion.

This reason may resolve itself into one lately given, namely, the roots and the top being in an unequal state of activity—the one too hot and the other too cold; or the one wet and the other dry. After the plants are in the house, and are grown in pots, there will not be such differences if some little matters are attended to. After dull weather, a bright sun would show the propriety of slightly damping the foliage, and a cooling of the roots, by evaporation, should be prevented by watering early in the day; and all waterings should be given judiciously, according to the weather and the circumstances of the plant; and not by hap-hazard—letting the water-pot give every thing a drop in its turn.

Another reason is, *repotting late in autumn*, and more especially if the old ball had not been previously properly watered. I lately saw a plant that had been so managed. A small shift had been given, less than half-an-inch, round the ball, and the spongioles were just beginning to work in the new soil, which was sufficiently wet to look at; but the weight again raised doubts, and, on turning the ball out, it was found the old ball was perfectly dry: the water had gone past it into the new soil, just as if it had been thrown from a duck's wing. The soaking of this ball by degrees, placing the pot in a saucer of water for a few days, caused the remaining buds to open well.

Exposure to severe cold, and especially to sudden extremes of heat and cold, will produce the evil. One correspondent says, it is from too much dry fire-heat; but that could easily be neutralised by slight syringings and evaporating pans. Another says, it is from frost, and wonders how that could be, as the plant is said to be almost hardy. Treat the hardiest plant as our Camellias in pots are generally treated, and we should make it comparatively tender. A plant growing in the ground, and one growing in a pot, though naturally equally hardy, will not stand the same treatment. I am convinced that this bud-shedding frequently proceeds from forgetfulness of this, and from leaving the plants out of doors too late in the autumn. I recollect a case which seems to me to confirm this. The Camellias were frosted in their pots by a sudden frost in the end of October. The soil seemed quite hard, but the tops did not seem at all injured. Unfortunately, the plants had been watered the day before, and the roots, in the exposed pots, full of roots, fell to a low temperature. A number of smaller pots were plunged in ashes, and a little dry litter was thrown over the pots early in the morning. The day broke out sunny and warm, and, as soon as the exposed pots moved freely from the ground, a part of them was taken into the greenhouse, and part into a cold shed—to which place, also, those plunged in the ashes were transferred. Those taken into the house shed the most of their buds; the result of the sudden change from being frosted into heat and sunshine. When the roots were examined, fresh spongioles were just forming, and the decayed ends of the older ones that had been frosted were easily perceptible. Those removed to the cold shed, and thawed gradually, received no injury, but opened their buds well. This is just confirmatory of all that has been advanced about thawing all frosted plants gradually. The placing these frosted plants into a sunny greenhouse was quite as wise as pitching a hard-frozen Savoy into boiling water, and expecting we should get a delicate, nutritious

vegetable. Plants, in a sudden frost, are often hurried pell-mell into a house, when a dark, cool shed would suit them better, until every vestige of the frost had left them.

Need I add, that the buds should be well matured. Those plants in pots, after the buds are set and swelling, will be benefited by standing out-of-doors, sheltered from the mid-day sun, and housed before the cold and wet is too much for them.—R. FISH.]

HEATING A GREENHOUSE FROM A KITCHEN BOILER.

"I am about to erect a greenhouse facing due south, twelve feet long by twelve feet broad, five feet high in front, and ten feet at back. Now, I have a kitchen boiler which holds, say, ten gallons; but this boiler is sixteen yards from where I intend making the greenhouse, and by no means can I have them nearer together. Now, I want to know if the house can be heated by this boiler. I want to get, say, 60°. Now, there are two things I am afraid of: the first is, I think the water will get cold before reaching the greenhouse; the second is, that the floor of the greenhouse will be eight feet below the boiler bottom. If you think the above plan cannot be made to act, what sized boiler would you recommend? Please to state in inches. Could not gas be made to heat it? I think it could, if the boiler was made of very thin iron. Gas at our place is 6s. per 1000. What would the house cost heating, think you, if gas could be made to do?—T. W."

[We should think nothing of the distance of the boiler, as the pipes could be kept partly from losing their heat by inclosing them in a tube of non-conducting matter; but the waste of pipe would be enormous—ninety-six feet going and returning before getting into the house. We consider the position of your boiler a more fatal objection. The smallest boiler manufactured, about 35s. to 40s., would be more than ample for your house. A small flue would also do, if you were satisfied with 45° or so, unless in summer, when you would have the help from the sun. A small iron stove in the house, with a metal tube, carefully luted, to take the smoke out, would be the cheapest of all; but be sure you have a tube for the smoke. As we have not had practice with gas ourselves, we shall be obliged by a practical answer to the question of cost. We once saw a neat little greenhouse fixed between the glass door of the parlour and the small adjoining flower-garden. In the scullery below the parlour was a small tin-kettle, the size of a fair-sized tea-kettle, hollowed concave beneath; two tin pipes, about two-inches-and-a-half diameter, were fixed to this kettle, and went round the little house, and the kettle was heated by a jet of gas, and sometimes by a naphtha lamp, and, I believe, answered well. This would not be so suitable to our correspondent; but much might be done in this way, with small greenhouses close to the mansion, or where pipes could be taken upwards from a close kitchen boiler. A merchant consulted us the other other day, but too late, for his pipes would have to descend more than our correspondent's; but there is always bother with any such plans.]

PRUNING OLD STANDARD HONEYSUCKLES.

"I have some large, fine, standard Woodbines, which are already showing many leaf-buds; but they appear old trees, only budding at the extremity of long, scrawly-looking branches, the middle looking as yet dead branches. Should they be occasionally cut down, or only thinned, like a Gooseberry-tree? And what is the right time of year?—A SUBSCRIBER."

[An old standard Honeysuckle is a most valuable plant for slight forcing, say, to have it in flower in March under the same treatment as Roses. It flowers on last year's wood, and the proper pruning of a Gooseberry-bush is exactly the way to prune this standard, only that you may cut off the first six or a few inches from the top of the young shoots of last summer, and that should be done in October if the plant is to be forced; but if not, any time before the end of March will do. By leaving Honeysuckle unpruned till the winter is well over, we often have them green when we come to cut them; but then the flower-buds are saved from the frost. On the supposition that your Honeysuckle is not to be forced,

give it a good thinning at the end of this month, and stop or cut off all the tops that are green.]

PROLONGING CHRYSANTHEMUM BLOOMING OUT-OF-DOORS.—LOBELIA SYPHILITICA AND RAMOSOIDES.

"I have read with much interest Mr. Beaton's paper on the growth of the Chrysanthemum, in the December number of THE COTTAGE GARDENER, pp. 160, 175, 195, and especially that part relating to the cultivation of them out-of-doors. This entirely agrees with my own more trifling experience. There is, however, one point on which I should be glad of your or Mr. Beaton's opinion, namely, whether they might not be kept longer in bloom out-of-doors by some kind of protection over them, which would keep the hear frost from falling upon them. I would propose a light canvass shade, or cover, supported at three feet above them, the plants being under a wall in a double or treble row. The canvass to hang down in front, and to be removed in the day time, if the weather permit.

"Can *Lobelia Syphilitica* be propagated by seeds successfully? Also, *Lobelia ramosoides*?—VERAX."

[Our correspondent refers to the Pompones; but, to simplify such inquiries in future, each section of this great and increasing family should be particularly mentioned. Chrysanthemums—that is, the large kinds—have been preserved from frost for many years, just as "VERAX" proposes for Pompones, and in ordinary seasons cut flowers can be had that way till the new year; but this season the canvass and a mat over it failed to preserve the bloom, after the glass fell below 15°. To have these Pompones in continuous flower all the winter, one would need an orchard-house,—which, like a vinery, is, or ought to be, as dry as a clothes' press,—late in the autumn, to ripen the fruit with the proper flavour. After the fruit is over, the inside of an orchard-house ought to be as dry as "tinder," and in that state would keep Pompones and large Chrysanthemums to perfection—not in pots, however, but with large balls from the open borders, as Mr. Salter disposes of them in his "Winter Garden." There can be no question, however, about "VERAX's" proposed canvass-screen being as useful and effectual as he thinks; and as there is no fear now for the popularity of Pompones and Chrysanthemums, we shall be glad to insert any and every suggestion for their management which may reach us.

Lobelia syphilitica is hardly worth the trouble of growing from seeds, as it suckers as freely as Chrysanthemums; and *ramosoides* never seeds, or, if it did, or does, it cannot be depended on but by cuttings; and four good plants of it should produce 3000 cuttings between this and planting-out time, on the principle of compound interest.]

TREATMENT OF RHODOLEIA CHAMPIONI AND LARDIZABALA BITERNATA.

"'CARRIG CATHOL' will feel much obliged for information as to the best mode and compost for growing the new plant *Rhodoleia Championi*. He has a small plant, about seven inches high, and having a dozen healthy, dark-green leaves, but no appearance of growth since he got it, four months since. It has been kept in a cool greenhouse, and is in a very light, peaty compost.

"He also requests similar information regarding the *Lardizabala biternata*. (This he had from Paris, labelled *L. Triternata*.) The *Lardizabala* is also, at present, in almost pure peat. When received they were potted in soil as nearly alike to what they had about them as possible."

[For *Rhodoleia Championi* we would recommend more heat than that of a cool greenhouse. In fact, so long as it is in a young state, the heat of an intermediate house would suit it best during the first four months of the year. When next shifted add a little fibry loam. (See an article by Mr. Appleby, p. 201, No. 324.)

The *Lardizabala* we would keep in a cool stove during the cold months of the year, until we are better acquainted with the low temperature it will stand.]

MAKING THE MOST OF AN AVENUE.

"Having just planted an avenue of Oaks, which are planted about ten yards apart in the row, and twelve yards from row to row; what I want to know is, whether three more trees might be planted between each two Oaks, (the latter to be permanent,) and what kinds. Would a Poplar in the centre, and a Scotch Fir each side, look well? The ground is under tillage at the back of the rows from the carriage-road. The object is to have something ornamental and profitable.—A SUBSCRIBER FROM THE FIRST."

[To plant a Black Italian Poplar in the centre between every two Oaks would be a good piece of economy, as there would be time and room for the timber and "top and lop" to grow to a size "to pay" before the Oaks are in the way; but there is no room left for two Scotch Firs. There are only fifteen feet between the Poplar and the Oak on each side of it; and a Scotch Fir would reduce the space to that occupied by many Currant-bushes. Without an eye "to pay for keep," two Scotch Firs between every pair of Oaks would look better, as an avenue, than the Poplar and Oak; and as to the soft-wooded Poplars, they are not worth planting on such terms. The Black Italian Poplar is the best timber we have for the *body* of carts. It is light, tough, and durable.]

VINES IN POTS.

"Will you, or any of the departmental writers of THE COTTAGE GARDENER, have the goodness to answer the following queries through its pages. I have got some young Vines, in pots, which I intend planting into a vinery, to be started forcing about the beginning of February. Should I turn them out of their pots just now, or retain them until they have pushed before planting out?—I. T."

[As this is your first trial, and the plants are young, depend upon it if you turn them out of the pots at once you will get into a great bother with them. Some of them will "throw up" fruit, and, of course, will not grow any more; but two-thirds of them will slip through your fingers, and grow, and not fruit or flower for eighteen months at least; and before your fruit is half ripe, the fruiterers are over-crowded, overshadowed, and "done for." But if you get the Vines all to "start" in the pots, you may plant them out as fast as they "show," and they will do four times better than in pots—not so much the fruit as the splendid suckers you will have next summer. Mind and let the bottom-heat not get over 80° as the highest point. They cannot stand so much heat as if in pots.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

WINDSOR POULTRY EXHIBITION. At Windsor, 4th, 5th, and 6th of June. Secs. Thos. Chamberlain, and Henry Thompson. Entries will close May 10th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

ON THE FEEDING AND GENERAL MANAGEMENT OF POULTRY AT PUBLIC EXHIBITIONS.

THERE is not a doubt to any really reflective mind that this is one of the most important matters connected with a poultry exhibition; yet, strange to say, very frequently it proves quite the most carelessly managed of all the duties that especially deserve the consideration of the committee. When we reflect on the great outlay frequently incurred in obtaining the most perfect specimens we are accustomed to meet with at a poultry show, combined with the personal effort necessary to keep up the "condition" so indispensable to success, the grave importance of the subject is much magnified; how much more so, then, if we for a moment consider the almost *irreparable* loss incurred by the owner, should disease, or death, ensue from indifference or mismanagement during their temporary confinement. A pen of fowls may, from this cause, become all but valueless, simply

because it proves, afterwards, *impossible* to replace the lost bird with another that will "match" those still remaining.

The writer has known several instances of this mishap occurring, where a little foresight and circumspection would have certainly prevented the disaster altogether. No doubt, one great and almost universal error of exhibitors themselves consists in over-feeding poultry when about sending them away for competition; this invariably entails unmerited complaints against the conductors of the show, although the eventual loss may as constantly rest upon the actual offender who forwarded them thus over-gorged. It is well known throughout all animated nature, that great excitement disturbs and—if excessive—absolutely destroys digestion for the time being, and, also, that food retained for a lengthened period without undergoing the usual decomposition, gradually consolidates into a crude mass, always impairing (and sometimes completely ruining) the constitution. It is well, then, for parties on the eve of despatching poultry of any kind to an exhibition, to pause and consider the amount of terror and excitement to which their favourites are about to be subjected. The jolting of land carriage to a railway station commences their excitement; whilst, during the time they may be awaiting the coming train, scarcely a bystander passes without pryingly examining every basket; at length, when placed in a van with other fowls during the transit, it is impossible for those who have not yet witnessed it to imagine the different results on the various specimens. Some birds will timidly cower half-hidden in the straw, or hay, placed beneath them, without moving during the whole journey, and these generally arrive in by far the best condition; others, more irritant (and, perchance, less domesticated), dash wildly about, and, by their desperate but futile efforts to obtain their liberty, add most excessively to the fears of their fellow prisoners. All are more or less disturbed; for it is only a few "old stagers" (long accustomed to be on travel) that make themselves at home on these occasions. Nor is the excitement lessened on their arrival; of course, the immediate proximity of strange birds, the clamour of cock crowing, together with the unavoidable unpacking and placing in the pens, all combined, tend greatly to increase rather than lessen their fears and irritability. If at this moment hard corn lies profusely scattered about the exhibition pens, long abstinence, and the rivalry that now prevails throughout, causes many fowls to feed upon it to excess, and, from their heated temperament, to drink most immoderately; the corn just swallowed, of necessity, becomes greatly enlarged, and the crop proportionably distended, inflammation quickly takes place, their thirst increases, and the difficulty is hourly augmented by almost continuous draughts from the water-troughs. From these causes we have frequently seen birds, arriving in apparently rude health, transformed, by the following day, into listless, inactive groups, in nowise engaging the attention of visitors, or purchasers, and still more unfortunate in securing the distinction all amateurs covet at the hands of the judges.

Many readers will, no doubt, easily call to mind various instances within their own recollection, where combs almost black from impeded circulation, ruffled plumage, and the most extreme prostration, were distressingly obvious to everyone, all which is entirely the product of the ill-judged management we have endeavoured faithfully to delineate. These various consequences are not over coloured; for how many an exhibitor could add his own individual testimony to the personal loss and discomfiture he has experienced, either *directly* during the exhibition, or in spite of every care and attention he could devote to his ailing favourites upon their return. In most extreme cases, the issue is a fatal one. The whole may be obviated by avoiding altogether giving *any hard corn whatever* to poultry during public exhibition.

During a show of two or only three days duration, every necessary want may be supplied by giving barley-flour, mixed as dry and hard as possible, to the poultry; it is indispensable to take care no more water is allowed than necessary to make it friable with ease, as most fowls strongly object to any substance that proves adhesive to their bills, whilst some, if it is offered in this state, will obstinately refuse it altogether. Another advantage of mixing with as *little* water as possible, arises from the improbability of the food

sully their plumage, if by any chance the fowls happen to rest up it, or (after stepping among it), tread upon each other. If thus treated, no fear of poultry becoming "crop-bound" need ever be entertained, even during a somewhat prolonged confinement; but should the interval exceed two or three days, a *little* hard corn, after the first forty-eight hours, may be cautiously and *sparingly* permitted, as, if not given to excess, it may tend to invigorate. In *excessively cold weather*, should such happen during the show, nothing will prove a more useful stimulant than common bread steeped with ale that is not adulterated. If, therefore, exhibitors will, themselves, adopt the plan of giving *only* soft food for, at least, six or eight hours previous to despatch, and committees adopt the plan we have suggested, likewise, the all-prevalent complaints of fowls returning with "*exhibition fever*" will soon be altogether discontinued.

It is, also, decidedly preferable *not* to permit excessive feeding on barley, wheat, or the like *dry* corn, *immediately on the return* of poultry, as the digestive functions are oftentimes temporarily impaired from their late inactivity; and this more especially applies where the owner's "walk" is of limited dimensions, as, on the other hand, an extensive "grass run" necessitates a far less rigid attention. *Clean* water is quite indispensable during their incarceration.

We must briefly allude to another prevalent evil at shows of poultry, viz.:—*draughts of cold air*. Scarcely anything injures fowls more seriously than being subjected to its chilling influences while compelled to remain inactive, and, therefore, a little care is not ill-bestowed to prevent it altogether. A digression condemnatory of OPEN wicker baskets for travelling seems here allowable, more especially as poultry sometimes remain for whole hours on a cold windy platform awaiting the train; the injury *thus* inflicted on unprotected fowls none but the experienced can appreciate, more particularly where birds are so unfortunate as to be placed on the tops of railway carriages.

The "handling," or "penning," and "repacking" the fowls is well worthy of every care and attention. Many instances have taken place where want of tact, or downright carelessness, has ruined a valuable fowl for ever; nor does this apply *exclusively* to the more tender varieties; for we well recollect being present when a careless, impatient subordinate siezed an adult Dorking cock, that had just been purchased at a large sum (we were informed £10), and in the struggle that ensued, from holding the bird by *one* leg (!), the thigh was broken *close* to the body, in one-hundredth part of the time it has taken the reader to peruse our statement. It is, perhaps, as well here to mention, all fowls should, invariably, be taken hold of round the body with *both* hands, the wings, being, of course, kept closed. Simple as these matters may appear at the onset, it is these little items (well managed, or carelessly attended to,) that make good, or for ever mar, the credit of an exhibition. Exhibitors will narrowly canvass the state in which poultry *is returned*, and, where their condition is deteriorated, are not generally at all backward in disseminating particulars but ill-calculated to improve the prospect of future years. If, on the contrary, all goes well, present success will constantly ensure future advancement.

GREAT NORTHERN EXHIBITION OF DOMESTIC POULTRY.

It is very rarely we have witnessed any Poultry Show carried out with the spirit and energy of the one held in the New Market Hall, at Doncaster, on the 23rd and 24th of January. The building itself is well calculated for the purposes to which it was thus temporarily devoted, being alike lofty, spacious, and well ventilated. Of the committee we need say no more, than that with parties so determined to fulfil their respective duties the success of the exhibition was unquestionable; and thus, from year to year, its progressive improvement has been the subject of general congratulation. Each one of these gentlemen was "always to be found," attending to the self-imposed duties of his particular department, nothing whatever being left to subordinates without their constant and special supervision;

therefore, the whole management offered a striking and pleasing contrast to the indifference and supineness we sometimes meet with on like occasions. To this cause chiefly do we assign the fact of this their fourth annual meeting far surpassing, in importance and excellence, *any* of those that have preceded it; and we strongly recommend similar *order* and *regularity* as a most important feature, though by far too generally overlooked, wherever enterprises of a similar character are projected.

One very obvious peculiarity of this meeting over those formerly held at Doncaster, was the universal superiority of the *whole* of the poultry exhibited. Instead of their being only a few excellent specimens standing out in positive relief from their fellows, as heretofore, the subject of general remark among visitors was, that whole classes might be carefully inspected without finding a single group that were not highly meritorious.

The *Spanish* classes, speaking of them as a whole, were very good indeed, but we could not help noticing many that were exhibited very inferior in "condition," though otherwise excellent. It is a great pity amateurs do not carefully attend to this particular, as it would prevent endless disappointment to themselves, and relieve them, likewise, of a variety of losses from imprisoning fowls whilst thus weakened in general constitution. We were informed, by a most respectable bystander, that various pens of poultry competing at Doncaster had been previously subjected to the trying ordeal of incarceration at five different shows, in only six or seven weeks! *Such hardships no fowls can possibly endure, without great injury to their general well-being, whether we consider their individual success in prize taking, or the production of first-class chickens the ensuing breeding season.* It is to the general debility thus produced we can confidently ascribe the very commonly-deplored-mis-haps of shellless eggs, or puny offspring.

The *Grey Dorkings* were, as a class, good, but the prize birds were not equal to those we now-a-days expect to meet with. The *White Dorkings*, on the contrary, were decidedly superior.

The first prize *Cochin* chickens (Buff or Cinnamon), were very greatly admired, and exhibited in general health and feather that it was impossible to improve. The Partridge-feathered *Cochins* were very indifferent; and here a prize was, consequently, withheld. The *Black*, *White*, or *Gray*, were equally distant from perfection.

Of *Malays*, only two pens competed; the prize, as will be seen, being awarded to fowls that had travelled for this occasion from the distant locality of Wellington, Somerset.

We now make mention of the classes that were the glory of the Doncaster Exhibition—the *Game*. Every variety was well represented, and, from the extreme superiority of the whole, our remarks must be mostly general. This neighbourhood stands in high renown for its devotion to the cockpit, and we, consequently, anticipated great rivalry; nor were we disappointed; but among the local exhibitors not a few instances occurred of owners completely "throwing away the prize," by paying no attention whatever to the matching the *colour* of the legs in the respective pens. Although we have so frequently alluded to this neglect on the part of amateurs, its constant recurrence compels us again to state, no hope can be held out of success where *Game* fowls are thus carelessly selected. We were somewhat amused by the singular appearance of many of the *hens*, which had been as carefully "dubbed" as their male companions, and must add our own individual opinion, that however *customary* in Yorkshire for brood hens, the practice is very far from attractive for exhibition birds, and by no means calculated to improve their ultimate success where competition runs closely. We are informed, however, the Judges did not make any comment on this peculiarity; nor did we, in hastily reviewing them, notice any pen thus mutilated that obtained honourable mention beyond high commendation. In the *Black* and *Red Game* (whether adults or chickens), the competition was very extensive, the two classes containing 181 most excellent pens. In the aged birds, our attention was instantly directed to the first-prize (single) cock at Birmingham, *here* mated to a pair of worthy female companions, and again successful in securing for its present owner the highest premium. In the second-prize adult pen, the male bird struck us as the most gor-

geous Game fowl we ever remember yet meeting with, and, by referring to the prize list, it will be seen the cockerel in even the "highly commended" pen (243), was considered by the Judges themselves the most superior in the exhibition. All the Game being so far beyond what is usual in the routine of poultry shows, we will simply content ourselves by adding our additional testimony to the unvarying "high condition" in which the whole were presented for competition.

The *Golden-spangled Hamburgs* were worthy of Yorkshire; the winners were chiefly local exhibitors, and the sales in these classes were numerous. The other varieties of Hamburgs were not worthy of particular comment of any kind.

All the *Poland* classes were triumphs of fowl-breeding, and the Blacks were strikingly so.

In the *Bantams*, it will be seen the board was pretty clearly swept of prizes by the highly-meritorious collection of Harvey Bayley, Esq., of Bedfordshire, to the unexpected discomfiture of several of the most widely-reputed breeders of these elegant varieties, and the sales of pens "claimed" were unusually numerous.

We cannot speak more highly than they deserved of the *Geese*, *Ducks*, and *Turkeys*; and the vast improvements in all these classes aroused the astonishment of most visitors.

The best pair of *Empden Geese* weighed nearly 44 lbs., the largest of *Ducks* 12 lbs., per couple, and the two *Cambridge Turkeys* 39 lbs. If the attainment of such weights at the commencement of the Doncaster Shows (only four years since) had been assumed as *probable*, no doubt the party making the assertion would have exposed himself to much ridicule, as dealing in fiction. We were, however, witnesses to a heavy wager made in the room, that in 1857, the party "would undertake to produce a pair of Geese, six pounds in excess of the present winners."

The *Pigeons* were good, and, together with the *Rabbits*, obtained especial attention from throngs of visitors.

Although at daybreak, on Wednesday, the weather was the reverse of alluring to *out-door* exercise, towards midday the attendance was very liberal, and we noticed considerable numbers of families belonging to the surrounding aristocracy, busily engaged in securing pens at the hour appointed for "claiming" them.

The support now afforded by local subscribers to the Doncaster Committee (and which they so richly deserved for their steady perseverance) is very liberal; and we have pleasure in recording the *fact*, that among their present most energetic adherents are many individuals, who, at the outset, loudly ridiculed the attempt as "certain of failure," and launched a host of witticisms on its projectors. From increased funds, we believe even a more liberal amount of prizes will be offered at future meetings.

The Judges for the Poultry were Mr. W. Chaloner, of Worksop, and Mr. Edward Hewitt, of Birmingham. For the Pigeons, Mr. John Brooke, of Sheffield; and the prizes for Rabbits were awarded by Mr. Thomas Wood, also of Sheffield.

SPANISH.—3. First, Thomas John Pearson, M.D., Burlington Quay. 7. Second, G. L. Fox, Esq., Bramham Park, Tadcaster. Highly Commended.—1. James Dixon, North Park, Bradford. 9. Wm. Newsome, Heckmondwike. 14. Rev. Morton Shaw, Rougham Rectory, Bury St. Edmunds. Commended.—17. Edward Simons, King's Mill, Birmingham. *Chickens of 1855.*—33. First, Rev. Morton Shaw. 19. Second, James Dixon, North Park, Bradford. Highly Commended.—27. Wm. Newsome, Heckmondwike. 28. Stephen Sncap, South Collingham, Newark. 29. Matthew Ridgeway, Dewsbury.

DORKINGS (Coloured).—41. First, Edward Akroyd, Esq., Denton Park, near Otley. 36. Second, Charles Thorold, Esq., Welham Hall. Highly Commended.—47. James Brown, Esq., Rossington Hall. Commended.—48. Rev. George Hustler, Appleton, Tadcaster. 51. Mrs. Winn, Nostel Priory, Wakefield. *Chickens of 1855.*—60. First, T. M. Keyworth, Cottesford Place, Lincoln. 74. Second, Rev. George Hustler, Appleton, Tadcaster. Highly Commended.—75. Rev. Morton Shaw, Rougham Rectory, Bury St. Edmunds. Commended.—52. James Dixon, North Park, Bradford. 53. Mrs. Parkinson, Knapthorpe, Newark. 73. Rev. George Hustler, Appleton, Tadcaster.

DORKINGS (White).—83. First, Rev. G. Hutton, Gate Burton Rectory, Gainsbro'. Highly Commended.—79. Jonathan Camm, Farnsfield, Southwell. *Chickens of 1855.*—87. First, Rev. G. Hutton. Highly Commended.—88. Edward Pease, jun., Southend, Darlington.

SHANGHAI (Cinnamon and Buff).—102. First, Wm. Dawson, Hopton, Mirfield. 107. Second, T. H. Barker, Hovingham. Highly Commended.—101. Wm. Sanday, Holme Pierrepont. *Chickens of 1855.*—123. First, Rev. Morton Shaw, Rougham Rectory, Bury St. Edmunds. 121. Second, John Staley, North Collingham, near Newark.

SHANGHAI (Brown and Partridge-feathered).—130. First and Second, Richard Swift, Southwell, Notts. *Chickens of 1855.*—136. First, T. B. Stead, 1, Upper Albion Street, Leeds. (Second prize not awarded.)

SHANGHAI (White or Black).—139. First, William Dawson, Hopton, Mirfield. *Chickens of 1855.*—141. First, J. E. Wilson, Clifton Cottage, Claverley, Bridgenorth.

SHANGHAI (Brahma Pootra or Gray).—148. First, Edward Simons, King's Mill, Birmingham. 147. Second, S. T. Baker, Manor House, King's Road, Chelsea. *Chickens of 1855.*—156. First, Miss M. E. Tong, Beckingham Hall, Gainsbro'. 151. Second, Mrs. M. Workman, Adwick-le-street.

MALAY.—157. First, John Buncombe, Wellington, Somerset. *Chickens of 1855.*—159. First, Rev. Thos. L. Fellowes, Beighton Rectory, Acle, Norfolk.

GAME FOWL (White and Piles).—163. First, Jonathan Camm, Farnsfield. 175. Second, G. Robinson, Esq., Thorpe Salvin Hall, Worksop. Highly Commended.—176. G. Robinson, Esq., Thorpe Salvin Hall. Commended.—164. James Moasey, Thorn Lane, Norwich. 179. Henry Beldon, Eccleshill Moor, Bradford. *Chickens of 1855.*—189. First, William Hopkinson, Worksop. 183. Second, Jonathan Camm, Farnsfield, Southwell. Highly Commended.—190. Joseph Hartley, Spring Lane Mill, Holmfirth.

GAME FOWL (Black-breasted and other Reds).—206. First, Charles Chaloner, Steetly, Worksop. 201. Second, William Mellowes, Carburton, Worksop. Highly Commended.—212. James Dixon, North Park, Bradford. 215. Richard Woods, Scofton, near Worksop. 221. William Hopkinson, Worksop. 239. George Hatfield, Doncaster. Very Highly Commended.—230. Edward Frith, Turner Wood, Worksop. Commended.—199. James Sadler, High Street Buildings, Doncaster. 210. William Ilhugworth, Sturton. *Chickens of 1855.*—248. First, Charles Chaloner, Steetly, Worksop. 242. Second, William Mellowes, Carburton, Worksop. Highly Commended.—255. William Ledger, North Wheatley, Retford. 263. Rev. T. L. Fellowes, Beighton Rectory, Acle, Norfolk. 270. Richard Swift, Southwell, Notts. Commended.—265. James Cross, Esq., Hodsock. 273. William Cox, Esq., Brailsford Hall, Derby. 274. G. D. Jarvis, Tickhill.

The Judges consider Classes 19 and 20 (Black-breasted and other Reds) highly meritorious. The cockerel in Pen 243 (Mr William Mellowes's) is, in their opinion, the best bird in the exhibition.

GAME FOWL (Blacks and Brassy-winged, except Greys).—283. First, Wm. Dawson, Selly Oak, near Birmingham. 290. Second, John P. Pilling, Huddersfield. Highly Commended.—287. George Holmes, Liverpool. *Chickens of 1855.*—305. First, John P. Pilling, Huddersfield. 297. Second, Nathan N. Dyer, Manor House, Bredon, near Tewkesbury. Commended.—299. Samuel Armitage, Thornton Road, Bradford. 303. George Holmes, Liverpool.

GAME FOWLS (Duckwings, and other Greys, and Blues).—311. First, W. S. T. Gooseman, Great Grimsby. 306. Second, Henry Shield, Preston, Rutland. Highly Commended.—310. Wm. Smith, Kent House, Ilfrac. 321. John Wright, Esq., Inland Hall, Ashbourn. Commended.—317. Robert Marsh, jun., Esq., Ickles, Rotherham. 326. Robert Bentley, Hatfield Moors. *Chickens of 1855.*—335. First, John Morgan, Bennett's Hill, Birmingham. 342. Second, Charles Chaloner, Steetly, Worksop. Highly Commended.—332. Wm. Ludlam, North Holme Street, Bradford. Commended.—331. Wm. M. Marriott, Boothroyd, Dewsbury.

GOLDEN - PENCILLED HAMBURGH.—349. First, Lord Viscount Galway, Serby Hall. 351. Second, E. Featherstonhaugh, Hermitage, Chester-le-street. Commended.—344. James Dixon, North Park, Bradford. *Chickens of 1855.*—356. First, Mrs. Parkinson, Knapthorpe, Newark. 361. Second, Wm. Sanday, Holme Pierrepont. Highly Commended.—353. James Dixon, North Park, Bradford. 355. Daniel Hampson, Singleton Park, Kendal.

GOLDEN - SPANGLED HAMBURGH.—378. First, E. Auckland, Red Lion, Doncaster. 373. Second, James Dixon, North Park, Bradford. Highly Commended.—374. Wm. Dawson, Selly Oak, near Birmingham. *Chickens of 1855.*—391. First, Edward Auckland, Red Lion, Doncaster. 380. Second, M. H. Broadhead, Stubbin, Holmfirth. Commended.—388. Joseph Wilkinson, Roundhay, near Leeds.

SILVER - PENCILLED HAMBURGH.—400. First, G. L. Fox, Esq., Bramham Park, Tadcaster. 396. Second, James Dixon, North Park, Bradford. *Chickens of 1855.*—412. First, Mrs. H. Sharpe, 47, Mill Lane, Bradford. 418. Second, Joseph Richardson, Thorne. Commended.—413. Joseph Wilkinson, Roundhay, near Leeds.

SILVER - SPANGLED HAMBURGH.—422. First, James Dixon, North Park, Bradford. 421. Second, James Dixon, North Park, Bradford. Commended.—425. E. Auckland, Red Lion, Doncaster. *Chickens of 1855.*—435. First, Edward Auckland, Red Lion, Doncaster. 432. Second, Joseph Wilkinson, Roundhay, near Leeds.

POLAND FOWL (Black, with White Crests).—No competition. *Chickens of 1855.*—440. First, Thomas Battye, Brownhill, Holmbridge, Huddersfield. Highly Commended.—430. Wm. Dawson, Selly Oak, near Birmingham. 441. William Newsome, Heckmondwike. 444. Countess de Flahault, Tullyallon Castle, Kincardine-on-Forth, Perthshire.

POLAND FOWL (Golden).—445. First, James Dixon, North Park, Bradford. Highly Commended.—446. J. W. George, Beeston Padge, Notts. *Chickens of 1855.*—449. First, James Dixon, North Park, Bradford.

POLAND FOWL (Silver).—453. First, Wm. Dawson, Selly Oak, near Birmingham. Highly Commended.—458. Henry Beldon, Eccleshill Moor, Bradford. *Chickens of 1855.*—460. First, Wm. Dawson, Selly Oak, near Birmingham. Highly Commended.—459. James Dixon, North Park, Bradford.

FOR ANY OTHER DISTINCT BREED.—464. First, Joseph Conyers, 42, Boar Lane, Leeds. 466. Second, Wm. Dawson, Hopton, Mirfield.

Highly Commended.—465. Joseph Conyers, 42, Boar Lane, Leeds. Commended.—468. Mrs Henry Moore, Doncaster. (A very good class.) *Chickens of 1855.*—473. First, Mrs H. Moore, Doncaster. 470. Second, Wm. Dawson, Hopton, Mirfield.

BANTAMS (Gold-laced).—482. First, Harvey D. Bayly, Esq., Ickwell House, near Biggleswaile, Beds. 478. Second, James Monsey, Thorn Lane, Norwich. Highly Commended.—477. Francis Blagg, South Leverton.

BANTAMS (Silver-laced).—489. First, Harvey D. Bayly, Esq. 486. Second, James Monsey, Thorn Lane, Norwich. Commended.—490. Mrs Lister, Hirst Priory, Bawtry.

BANTAMS (Black).—500. First, Matthew Ridgway, Dewsbury. 503. Second, Thomas Pearson, Holbeck Mills, Leeds. Highly Commended.—493. Richard Hawksley, jun., Southwell, Notts.

BANTAMS (White or any other colour).—511. First, Harvey D. Bayly, Esq. 507. Second, James Dixon, North Park, Bradford. Commended.—515. Edward Pease, jun., Esq., Southend, Darlington.

GERSE.—521. First, Henry Ambler, Watkinson Hall, Halifax. 524. Second, Edward Appleyard, Thorne. *Hatched in 1855.*—527. First, Henry Ambler, Watkinson Hall, Halifax. 534. Second, Edward Pease, jun., Esq., Southend, Darlington. (A very good class.)

DUCKS (White Aylesbury).—539. First, Joseph Conyers, 42, Boar Lane, Leeds. 535. Second, Pelham W. Barnard, Bigby, Brigg.

DUCKS (Rouen).—555. First, Edward Akroyd, Esq., Denton Park, near Oley. 553. Second, Geo. L. Fox, Esq., Bramham Park, Tadcaster. Commended.—558. B. H. Brooksbank, Esq., Tickhill.

DUCKS (Muscovy).—560. First, George Liddle, jun., Esq., Lindholme.

DUCKS (Any other variety).—565. First, Jeffery Aldam, Epworth. 569. Second, Joseph Conyers, 42, Boar Lane, Leeds. Highly Commended.—566. T. M. Keyworth, Cottesford Place, Lincold. 567. Lord Viscount Galway, Serlby Hall. 571. Rev. C. Hudson, Saundby Rectory, Retford.

TURKEYS.—576. First, George Daft, Halloughton, near Southwell, Notts. 579. Second, R. J. Bentley, Esq., Fimbley Park. Highly Commended.—583. E. Pease, jun., Esq., Southend, Darlington. *Hatched in 1855.*—588. First, C. Pocklington, Silver-street, Boston. 587. Second, Edward Brooke, Hampole. Commended.—591. R. J. Bentley, Esq.

PIGEONS.

CARRIERS.—593. First, J. Deakin, 114, Green Lane, Sheffield. Commended.—597. J. Wilkinson, Roundhay, near Leeds. **ALMOND TUMBLERS.**—615. First, F. Esquilant, 346, Oxford-street, London. **BALDS, BEARDS, AND MOTTLED TUMBLERS.**—625. First, John Tindale, jun., Ewerby, near Sleaford. **OWLS.**—640. First, Henry Beldon, Eccleshill Moor, Bradford. **NUNS.**—644. First, Miss Richardson, Thorne. **TURBITS.**—652. First, Henry Beldon, Eccleshill Moor, Bradford. **ARCHANGELS.**—656. First, Henry Child, jun., Sherbourne Road, Birmingham. **JACOBS.**—669. First, F. Esquilant, 346, Oxford-street, London. **FANTAILS.**—678. First, J. E. Mapplebeck, 105, Moseley Road, Birmingham. Commended.—679. John Tindale, jun., Ewerby, near Sleaford. **TRUMPETERS.**—685. First, George S. Slater, Beverley Iron Works. **POUTERS OR CROPPERS.**—696. First, Henry Beldon, Eccleshill Moor, Bradford. **BARBES.**—699. First, Timothy Hives, Cotgrove, Nottingham. **RUNTS.**—706. First, Edward A. Lingard, Birmingham. Commended.—703. S. T. Baker, Manor House, King's Road, Chelsea. **DRACOONS.**—710. First, George Parkinson, Fir View, Sheffield. **ANY OTHER NEW OR DISTINCT VARIETY.**—721. First, J. E. Mapplebeck, 105, Moseley Road, Birmingham.

RABBITS.

A PAIR FOR LENGTH OF EAR.—724. First, Master Henry Moore, 40, High-street, Doncaster. **PAIR OF COLOURED.**—725. First, Henry Beldon, Eccleshill Moor, Bradford. **RABBIT FOR WEIGHT.**—729. First, Garbert Pine, Bentley. **FOREIGN OR OTHER VARIETY.**—730. First, J. E. Mapplebeck, 105, Moseley Road, Birmingham.

LIVERPOOL POULTRY SHOW.

I VISITED this Show last week, and, on the whole, returned greatly pleased. To come up to a secretary's idea of an exhibition, I must grumble about something, and having given vent to my ideas, shall submit with pleasure to the correction of the secretary, or some one of your correspondents equally obliging.

In some respects, I look on the late Show as experimental, and when I first saw the prize list and the conditions I had a few misgivings as to the result. The success of the Show plainly proves to me that I knew nothing of the matter, and that the committee had acted wisely in raising their entry to 10s. a pen, or, as I believe they call it, 8s. a pen. When we consider that in 1854 the committee caused great dissatisfaction by returning many entries, the reason of this alteration is quite clear; they could only accommodate a certain number of pens, which, of course, they wished should contain the choicest specimens of their kind, where Greek should meet Greek. They would thus also avoid any approach to a poultry market. And here allow me to observe, that having visited many Shows, I have always

found the greatest grumblers, and those most anxious to effect sales, combined in the same persons.

Now, without pretending to be a "Downing Street pet," as friend *Punch* hath it, or to a profound knowledge of titles, I take leave to object to the style, GRAND Poultry Show. I am a breeder, and may call myself a successful exhibitor, yet I cannot see anything "Grand" about it, from the time the chick is hatched till you see the silver cup on your side-board. St. George's Hall is grand, undoubtedly; but Lucas's Repository is not, statuary and chimney-piece notwithstanding. A little whitewash on its walls, and another window or two, would, however, be great improvements; but, such as it was, I understand it was the best building the committee could procure.

The prize list was good, and the "cups" offered for competition were the best I have seen, heavier than some given at other Shows, and the two larger ones looked, to me, worth considerably more than £10. For their exhibition, a pen was lined with velvet, and the "cups" exhibited on raised shelves. This was by far the most attractive pen in the Show; and I heard many remarks on the good taste and liberality of the committee. In another matter, too, their liberality was unquestionable. I saw a man feeding the birds, and was greatly amused with the tone and manner of his reply to my question, of what he was feeding them with. "Oh, they lives well, sor. Oi gin nm some oats and barley, and ther's the bran and the water, sor; and I'm going to gie nm some Indy corn, and some meal." One cannot complain of this dietary on the score of sameness; but I felt some anxiety as to the state in which my birds would be on their return home from the Show. In this, however, I was agreeably surprised; they never came back from any Show in better condition. The bran pointed to with so much satisfaction by the man is a great improvement on saw-dust, and many of the birds ate it greedily.

Taking the whole collection, I believe so many good birds were never collected together in so small a space. Many had, however, "assisted" at the Preston Show the week before, and were, consequently, out of condition. This caused several disappointments; but their owners have themselves only to blame. As a rule, birds cannot be exhibited, with success, in successive weeks; and I was not surprised to hear that many which had taken the cup at Preston did not attract the Judges' notice here.

In *Spanish*, the cup was taken by Mr. Davies, with a pen of old birds. They were sold for £100. My modesty will, I fear, be greatly called in question, when I say the purchaser made a mistake, and ought rather to have purchased the birds in pen 4. I agreed with the award as the birds stood; but in all future exhibitions the second prize-birds will, I expect, prove themselves to be the better ones. Mr. Davies's triumph in this class was somewhat diminished, by the fact that Mr. Henry's birds were not sent, owing to the injury the cock's face had received from the beak of one of his wives. The first-prize Spanish chickens were beautiful birds, and in excellent condition; the cock in the "Highly commended" pen was not at all to my mind. The single cock, exhibited by Mr. G. Moss, was the "bean ideal" of a young cock, and would, undoubtedly, with hens to match, take the first prize anywhere. His owner refused £40 for him, and will, I trust, be in a position to make an addition to his motto—*En les Espagnols je fleuris et même "sur la rose;"* the effect would be novel, I will not say "grand."

The *Dorkings* were most excellent in colour, shape, and weight. The cup birds were, I believe, bought in at thirty guineas. Mr. Wright, who has been right on several occasions, exhibited some splendid chickens, and it is possible, that had he taken more care in penning his birds, the cup would not have gone to Oswestry. In single cocks, a first-rate bird, in all respects, was shown by Mr. Ullock, taking first prize, and finding a purchaser at £20. In this class I think the Judges decidedly "tripped;" they "highly commended" and "commended" two cocks, both of them "knock-kneed."

The Rev. S. Donne's cup pen of *Cochins* were in excellent feather, the old cock looked as well as ever. This gentleman, I believe, gained both Dorking and Cochins cups last year, and has repeated his triumph; an occurrence, I believe, unprecedented in poultry annals. Mr. Stretch's chickens must, I fancy, have "run up" to the old birds in

the award; these, I understood, the owner refused to sell. Mrs. Herbert took second honours in White chickens. The Cinnamon would now appear to be the favourites, as I noticed the White ones were marked at a very low figure.

The *Game* classes contained many magnificent birds. The cup pen were purchased for £10; but, for my own part, I should have preferred the Earl of Sefton's first-prize single one. I noticed that many of the cocks were not well "dubbed." What is the proper age to "dub?"

The *Hamburgs* constituted a good show of themselves. In Gold-pencilled chickens the Hon. Secretary was successful, and he also gained a "cup" with the best pen of Gold-spangled birds I ever saw. That one who has taken so much trouble with the Show should meet with so agreeable a reward, will, I feel sure, give general satisfaction. The Silver-pencilled chicken class was the best I have seen since Anerley; the cup falling to the lot of Mr. Edward Archer, with a pen of well-matched chickens; the second prize was taken by Mr. Cox, of Brailsford, a new name in this class. The cock in this pen was a decided improvement on his first-prize Birmingham one, inasmuch that both his ears were alike; he, therefore, did not sport as that "Birmingham" cock did, one pink and one red deaf ear. In old birds, Mr. Dixon, of Bradford, received only second honours (that unfortunate Birmingham judgment being again corrected); his success, however, in other classes was great, and deserved.

I greatly admired many of the *Polands*; but in these, and the remaining classes, I am not at all learned; besides, it has just occurred to me that your readers may consider my letter too long, so I conclude by saying that many remarks were made in reference to the second-prize pen of Silver *Bantams*; that the *Ducks* and *Geese* were of great size; and that, "please the pigs," I shall visit the next Liverpool Show.—M.

SALES AT THE LIVERPOOL POULTRY SHOW.

THE Liverpool Show will be long remembered for its sales. Captain Hornby claimed Mr. Davies' two pens of *Spanish* fowls at £100 per pen. Mr. Moss refused £40 for an eight months old *Spanish* cock. Mr. Brundrit sold two *Spanish* pullets for £25; Mr. Ullock a *Dorking* cock for £20; and Mr. Wright one for £10.

COPAIBA AS A REMEDY FOR ROUP.

In answer to Mr. Tegetmeier's letter in your journal of the 22nd, I beg to say, that I have used the *solution of Copaiba* for some time with the greatest benefit in the cases of roup. I prepared it myself from the enclosed formula, at the same time using lime freely to produce sneezing; lime dust causing the fowls to discharge a great deal from their nostrils, which relieves them greatly. The following is the formula:—

Bals. Copaiba 8 drachms.
Liq. Potassæ 12 drachms.
Water 20 drachms.

Boil for fifteen minutes, and, when cool, separate the clear liquid from the oil floating on the surface.

Dose, one teaspoonful twice daily.—S. F. B.

SPANISH PREVENTIVE OF THE ROUP.

WE hear a lot of stuff, especially as to the panaceas for health, in a variety of forms applicable to the human economy, and as numerous a train of balderdash in reference to the bestial one; and now I will give you a gallinaceous one. A Lisbon gentleman asserts, as a universal fact, that in that district it is common to place a portion of an old shoe in the water from whence the poultry drink, as a certain preventive of the roup. Now, if this plan for the well-doing of cocks and hens emanated from the knights of St. Crispin only, we should be justified in quoting the line, "Ne sutor ultra crepidam," but as it is capable of being reasoned upon, just let us (for the life of me I can't help grinning myself) enter upon an analysis of its presumed

probabilities. My father used to say, "On entering life, don't pooh, pooh, the observations of old women; listen quietly; one may promulge a wrinkle worth knowing;" and although this old shoe might appear absurd on the surface, it, nevertheless, has some merits, and may promulge a wrinkle. The roup is a subacute inflammation of the mucous membrane of the air passages, producing cough, relaxation of the throat, and debility, probably infectious. The distemper in dogs is not unlike the roup in many particulars. "Well, now, we won't go farther," nor will we draw a long thin line, but take the part of the old shoe at once, although a new one would be better. The leather contains tannic acid, and probably a few nails, these two agents are sufficient to produce a valuable astringent tonic, and very applicable to the case in point. Now, I apprehend a little oak bark, and a little sulphate of iron, given to roup-y birds in their water—the gist of the matter—is not a bad wrinkle.—W. H.

COMPARATIVE VALUE OF AYLESBURY AND ROUEN DUCKS.—LIME FOR FOWLS.

I SHALL feel greatly obliged, if in the next number of your very useful publication you will inform me whether Rouen or Aylesbury Ducks are esteemed best for the table—which of them bring the highest price in the market?

I also wish to know what period of time must elapse before fresh-slacked lime becomes fit for fowls. I find it difficult to procure sufficient old mortar for my laying hens, and I therefore purpose putting some lime, and slacking it in a place where the fowls can be prevented getting access to it until it is fit for them. Being intended solely for fowls, will the addition of sand to the lime be advantageous?—FOWL.

[Taking the year, or season, throughout, no Duck makes so much money in the market as an Aylesbury. This may partly be accounted for by the fact, that it is earlier fit for the table, by many weeks, than any other; also, that it has a more natural inclination to fatten. It is only fair to state, that more pains are bestowed upon them than any other. It is a trade peculiar to Aylesbury. In 1855, thousands of them were sold as ducklings, at eighteen shillings the couple, and some higher still.

Taking the average of stock birds, Rouen are worth more than the Aylesbury.

Common chalk is a better thing for fowls than burnt oyster-shells, and all that is necessary, is to have either chalk or lime laying about in small pieces near their haunts during their laying time especially.

The best plan is to take lime in some sort of vessel, and slake it in the fowl-house; as soon as its fumes have thoroughly purified the house, throw it down, if under a shed where water will not reach it, so much the better. No sand is necessary.]

CLEAN AND AIR THE POULTRY-HOUSE.

In frosty weather, leave every door, window, and aperture of a poultry-house wide open all day. Take advantage of the dry, hard surface to cleanse it thoroughly. Nothing purifies buildings and fowl's walks more than a sharp, short frost, and nothing conduces more to the health of poultry, provided it be not so severe as to freeze combs, &c.

SALE OF MR. DAVIES' POULTRY.

Mr. Davies' Sale took place at Stevens' Room, on Wednesday last, and brought together more first-class amateurs than any sale since the days of Coehins. Although it was known the best birds were reserved for breeding, yet the desire to possess some of the celebrated strains caused much competition. One *Spanish* cockerel made £14; an old bird made £8 10s. One *Dorking* cock brought £13 10s.; another £9; another £8 10s.; while many, both cocks and pullets, made from £2 to £3, and, in many instances, £4 each.

We consider it a very satisfactory sale for all parties; and, had the best birds been there, there is no doubt they would have made higher prices.

COVENT GARDEN.

FRUIT.

Peas, per bushel	—
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz.....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Turnips, per bunch ..	,, 3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s. 6d.
,, Cabbage....	6d. ,, 8d.
Endive, per score ..	1s. 6d. ,, 2s.
Celery, per bunch. .	9d. ,, 1s. 6d.
Radishes, Turnip, per dozen bunches ..	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet.....	2d. to 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	5s. ,, 8s.
Sea-kale, per punnet	2s. ,, 3s.
Rhubarb, per bundle	1s. 6d.
Cucumbers, each	1s. ,, 3s.
Vegetable Marrow, per dozen	—
Tomatoes, per punnet	—
Mushrooms, per pot	1s. 6d. to 2s.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d.
„ Red, per doz.	2s. „ 4s.
Cauliflowers, per doz.	4s. to 6s.
Brocoli per bdl.	1s. „ 2s.
Savoy's	1s. „ 2s.
Greens, per dozen	
bunches	4s. „ 6s.
Spinach, persieve....	— „ 4s.
Beans	—
French Beans, per	
hundred	3s. „ 4s.
Scarlet Runners	—

HERBS.

Basil, per bunch . . .	4d. „	6d.
Marjoram, per bunch	4d. „	6d.
Fennel, per bunch ..	2d. „	3d.
Savory, per bunch ..	2d. „	3d.
Thyme, per bunch ..	2d. „	3d.
Parsley, per bunch ..	2d. „	3d.
Mint, per bunch	2d. „	4d.

GRAIN AND SEED.

WHEAT, Essex and Kent red, old.....	—s	—s	—s,	fine	—s	—s	0s
Ditto ditto new.....	67s	72s	—s,	fine	74s	—s	—s
Ditto ditto white old.....	—s	—s	—s,	fine	—s	—s	—s
Ditto ditto new.....	71s	80s	—s,	fine	81s	—s	—s
Foreign, red.....	75s	83s	—s,	fine	84s	92s	—s
Ditto, white.....	80s	96s	—s,	fine	87s	94s	—s

RYE	52s	54s,	fine	—s	—s
BARLEY, grinding.....	30s	32s,	fine	33s	36s
Distilling.....	35s	37s,	fine	37s	38s
Malting	40s	41s,	fine	41s	42s
MALT	70s	74s,	fine	76s	78s
PEAS, hog, new.....	38s	40s,	fine	—s	—s
Maple	40s	42s,	fine	—s	—s
White	42s	44s,	fine	48s	50s
Blue	52s	54s,	fine	—s	—s
BEANS, pigeon.....	48s	50s	—,	new	50s 54s —s
Ticks for splitting	40s	44s	—,	new	39s 40s —s
Harrow	48s	52s	—,	new	44s 46s —s
OATS, English feed	22s	23s,	fine	23s	24s
Poland or brew	26s	27s,	fine	27s	28s
Scotch potato	31s	32s,	fine	32s	33s
Ditto feed	27s	29s,	fine	29s	30s
Irish potato.....	27s	28s,	fine	29s	30s
Ditto feed white.....	22s	24s,	fine	24s	25s
Ditto black.....	23s	24s,	fine	24s	25s
Foreign feed free	22s	24s,	fine	24s	25s
Poland or brew	26s	27s,	fine	27s	29s
FLOUR, Town made, per sack.....	67s	70s	73*s,	Seconds	62s 65s
Essex and Suffolk					55s 57s
Norfolk					51s 53s

HOPS.

Mid. and East Kents, 70s. 112s. to 126s.; Weald of Kents, 65s. 84s. to 56s.; Sussex Pockets 60s. 80s. to 90s.

Clover, 1st cut per	Rowan	80s. ,, 90s.
load	Straw, flail	30s. ,, 36s.
110s. to 140s.	Ditto, machine ...	28s. ,, 30s.
Ditto, 2nd cut		
90s. ,, 130s.		
Meadow Hay		
90s. ,, 130s.		

POTATO.

There is still a moderate supply, and a dull trade. The unusual scarcity of Woodcocks, Snipes, and Plovers continues, although a few of the first have come in.

POULTRY.

Cock Turkeys .. 11s. to 15s. each.	Larks 1s. 9d. to 2s. per doz.
Hen Ditto 7s. to 8s. 0d. "	Guinea Fowls 2s. 9d. to 3s. each.
Large Fowls .. 5s. 6d. to 6s. "	Woodcock 4s. to 4s. 6d. "
Smaller do. 3s. 6d. to 4s. 6d. "	Snipes 2s. to 2s. 3d. "
Chickens 2s. 6d. to 3s. 3d. "	Rabbits .. 1s. 5d. to 1s. 6d. "
Goslings 7s. 6d. to 8s. "	Wild do. 10d. to 1s. "
Ducklings 3s. 6d. to 4s. 3d. "	Pheasants .. 3s. 6d. to 4s. "
Wild Ducks 2s. 6d. "	Partridges 2s. 3d. to 2s. 6d. "
Teal 2s. 3d. to 2s. 6d. "	Hares 2s. 6d. to 3s. "

PROVISIONS.

The following are the quotations :—

BUTTER.—Cwt.		HAMS.—Cwt.	
Cork.....	100s. to 112s.	Irish.....	82s. to 86s.
Limerick.....	98s. „ 102s.	Westphalia	72s. „ 76s.
Carlow	108s. „ 112s.		
Sligo	100s. „ 105s.	LARD —Cwt.	
Carrick.....	108s. „ 112s.	Bladdered	76s. to 83s.
Waterford	100s. „ 106s.	Kegs.....	68s. „ 70s.
Holstein	102s. „ 116s.	P.M. beef (304lb.)	105s. „ 0s.
Friesland	113s. „ 116s.	P.M. pork.....	95s. „ 97s. 6d.
BACON.—Cwt.		CHEESE.—Cwt.	
Waterford sizeable	56s. to 62s.	English, NewCheshire,	70s. to 84s.
Heavy	54s. „ 58s.	Cheddar.....	74s. „ 90s.
Limerick sizeable ..	0s. „ 0s.	Gloucestershirc, dble.	66s. „ 73s.
Hambro'	56s. „ 58s.	Ditto, single	60s. „ 70s.
Bale middles	0s. „ 0s.	Foreign—	
Tierce middles	61s. „ 0s.	Edam	56s. „ 60s.
American—		Gouda	50s. „ 56s.
Singed sides	56s. „ 58s.	Kanta	28s. „ 0s.
Boneless middles ..	0s. „ 0s.	American	56s. „ 62s.
Short middles.....	0s. „ 0s.		

MEAT.

	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
Beef.....	3 4	4 6	4 10	Vcal.....	5 2	5 6	6 0
Mutton	3 6	4 8	6 0	Pork.....	4 0	4 6	4 10

BREAD.

The price of Bread in the City and at the West End is still maintained at 9½d. to 10½d. the 4lb. loaf, but in other places the bakers are selling the best bread at 9½d. while in the cheap neighbourhoods they profess to sell at 8½d.

WOOL.

Down Tegs 1s. 2s. to 1s. 3d.	Kent fleeces .. 1s. 1d. ,, 1s. 2d.
Ditto Tegs and	Leicester fleeces... 1s. ,, 1s. 1½d.
Ewes 1s. 1d. to 1s. 2d.	Long, heavy do..... 11d. to 1s.
Half-bred Hog-	Combing skins .. 10½d. to 1s. 1d.
gets 1s. 3d. to 1s. 3½d.	Flannel wool .. 1s. 1d. to 1s. 2½d.
Do. Wethers 1s. to 1s. 2d.	Blanket wool 6d. to 11d.

TO CORRESPONDENTS.

ERRATA.—Page 241. col. 2, line 7 from top, for "Orchid-houses," read "Orchard-houses." The same mistake occurs at page 242, col. 2, line 13 from bottom. Page 241, col. 2, line 11 from bottom, for "Fish," read "Fergusson." This error arose from "Mr. F." being in the MS.

“If my hints are of any service, I shall be happy to continue them. But what can we young ones do amongst such clever men as Mr. Beaton. Mr. Appleby, and others? I know above one young man who would, if he dare, write his experience; but we fear offending these princes of horticulture and floriculture; consequently, if we happen to stumble upon an improvement it is lost, or claimed by a wiser and bolder man; and I believe many discoveries are retarded, or lost, owing to many being retiring or diffident in our humble profession. For myself, I am heartily glad Mr. Beaton has invited us. If we write trash, you need not print it.” —To this anonymous communication we can only reply, that young gar-

deners writing to us the results of their experience, will not only not offend our able coalfintors, but will give great pleasure both to them and to ourselves. Let no young gardener, however unlearned, or however diffident, hesitate for a moment about writing to us of such facts as he may have observed. We will take care that the grammatical errors shall be corrected. Such communications will be acceptable as a return for our answers, which we are always ready to give to all questioners.

HEATING A GREENHOUSE (*A Constant Reader, Birmingham*).—We do not see whether the flue passes once or twice in the back-wall. If only once, so much heat will be absorbed in the wall, that in severe and sudden frosts there will be a deficiency of heat at the front. We presume you mean to put a fire in the contemplated stoves in the house, and, provided you use good fuel, and lute the joints of the pipes well, we do not see why it should not answer. But besides them, and the expenses of two fires, it seems a very roundabout way of gaining an object. Could you not fix a six-inch iron pipe in your flue at once, blocking up the flue, to cause the heat and smoke to pass through the pipe, without any extra stove? Or, better still, why not bring the flue round the ends and front of the house, as you propose with the pipes, and let it then go through the back wall as before? A very small flue indeed ought to heat such a house. This flue could go close to the ground, or even under the ground, its top forming part of the floor, provided the flue underneath the bed is not too high for that, and the furnace is deep enough to ensure a draught. A flue, six inches deep, and six inches wide, inside measure, ought to do.

GREENHOUSE OVER AN OVEN (*C. B.*).—We have no recollection of receiving your letter. We make it a point to notice every communication, or to state where the information is to be found; though it frequently happens we cannot answer a communication at once. We fear your chief difficulty will arise from deficient light. It would also be advisable to have an outlet for the heated air at the highest point of the roof. The drying must be considerable if you have to water every alternate day in dull, foggy weather. We should think nothing of it in bright weather. As only about the half of your roof is glass, we presume that shade has as much to do in growing, or rather drawing, your plants as heat. The placing your plants on the floor would, we presume, be placing your plants too far from the glass. The simplest remedy we can think of would be to cover most of the floor with several inches of sand, or small gravel, and water that frequently with a rose on the watering-pot. A coating of gravel and sand would thus neutralise the evil, if kept moist; but in winter time, if this plan was adopted, you would require a small ventilator at the highest part of the roof.

GERARD'S HERBAL.—Johnson's edition of this, published in 1636, may be had of Mr. Kerslake, Bookseller, Bristol, for eighteen shillings.

LAWN MANAGEMENT (*G.*).—See what Mr. Beaton says to-day.

VARIOUS (*Italicus*).—You had better buy *Rhododendron Dalhausiana*. No one can tell yet on what stock the *Sikkim Rhododendrons* can be best grafted. It is too late for you to plant the *Hyacinths* unless they have been growing in pots. Your *Mitrasia coccinea* which produced only three flowers is either too vigorous, making long, soft, rambling shoots; or it is not healthy. It is about as hardy as a *Fuchsia*. The time elapsing before a *Phaseolus caracalla* blooms depends on its treatment. More than one plant is so called.

OLEANDER (*A Subscriber*).—The treatment of the *Oleander* has often been given. The shoots that are well-grown and well-ripened this season will bloom the next. The chief things, therefore, are rich soil, rich waterings, and a good heat, if sparable, when growing early in the season, giving more air towards autumn; and in September and October getting the plants against a fence facing the south, and there giving not a drop more water than will keep the leaves from dropping and flagging, and keep in this dryish state all the winter. This treatment will arrest growth, and mature and preserve the flower-buds at the termination of the shoots. When supplied with moisture and increased warmth the bloom stalks will appear. When done blooming, prune, and grow on again. You seem, however, to get bloom-buds but not flowers. There may be two reasons for this. The first, want of heat; the second, the not nipping out the young shoots that start from the base of the flower-stalk.

VARIOUS (*A Lady*).—The leaves of the *Tropæolum Triomphe de Ghent* have every appearance of having been spread over by the thrips, a small, jumping insect, for which tobacco smoke and strong syringings would be the best remedy. A similar appearance is also presented when the plant is growing in too low a temperature. It wants from 45° to 50°. Perhaps the quickest plan would be to pull off most of the leaves, lay the plant down, and turn it round and round while it is syringed unmercifully. The *Hebe tinianus*, and other genera ending in "linum," are plants a sort of go-between *Ageratum* and *Eupatorium*, and requiring a cool stove, or an intermediate house, in winter, and the easiest culture. It is the Lady Bird itself, not its larva, that destroys the aphids.

CAMELLIA BUDS FALLING (*D. Boyers*).—We should think too many flower-buds were left on the *Camellia*, unless, indeed, it were very large. We fear the buds on the *Azalea* were not sufficiently swelled and ripened in the autumn. Just when done flowering they require a nice, close, moist, warm atmosphere. When the buds are setting, an airy place is just the place for them; but at this period they want a little warmth and closeness to bring the buds in bloom.

AZALEAS NOT FLOWERING.—Several correspondents complain that their buds drop, as in the above case of *Camellias*; and others say, the shoots lengthen instead of flowering. In the first case, much the same reasons will apply as in the *Camellia*; and in the second case, the evil is generally the result of not getting the buds set sufficiently early, and ripened well enough afterwards by exposure to sun and air. If anything like forcing is attempted, this will be more perceptible.

ROSE FOR A RUSTIC BASKET (*Annie*).—*Gloire de Rosamère* is one of the best for the purpose planted inside the basket, and the Rose-trees two feet apart. When the branches meet treat this Rose as an annual, that is, cut it down close to the rim of the basket. Do not train it on the rim. The Roses growing over the handle of the basket must not be cut down like those growing round the rim.

MISLETOE SEED (*A Subscriber*).—Your best chance now to obtain it will be by applying to some friend, or seedsman, in the Orchard districts of Herefordshire, or Gloucestershire.

RIVER WATER (*A Citizen*).—We know the river water of your vicinity (Norwich) quite well. It is quite available for plants without any addition. Instead of either ammoniacal liquor, or Sulphate of Ammonia, dissolve a quarter of an ounce of Guano in a gallon of the river water before giving it to your Greenhouse Plants: but even this must not be done oftener than once a week. At other times give the river water simple.

BEAN-MEAL (*An Amateur*).—It is of no use whatever as a food for Bees.

DIPOORA (*Alpha*).—This is the seed of a *Cicer*, or some other genus of small leguminous plants. It is the same as the *Darra* sold in the Liverpool Corn Market.

LENS (*J. C. Cooke*).—Go to any optician and buy a pocket lens which you find magnifies powerfully and suits your sight.

GARDENING TERMS (*W. Earwaker*).—You will find these explained, and the names of plants translated, in *The Cottage Gardeners' Dictionary*, the second edition of which is now publishing in three-halfpenny numbers.

BARRENNESS IN RABBITS (*An Old Subscriber*).—"I am not aware of any particular food that is likely to produce barrenness, nor have I ever found that the fancy Rabbits were less prolific than any others under the same treatment; but the fancy kinds are usually better looked after, and fed on more nourishing food, which causes them to be too fat, and, consequently, they do not conceive so readily, and are apt to miscarry, or to have small litters, or experience more difficulty in parturition. I think barrenness in animals is more generally a consequence of too high feeding than of any natural defect. My place being badly situated, I do not attempt to rear either Chickens or Rabbits after June; and after the long rest I find my doe Rabbits rarely conceive the first time, and frequently not even the second or third. I find it best, in such cases, to leave the buck with the doe for a fortnight, or three weeks, and also to reduce her condition. Perhaps some one else may be able to give "An Old Subscriber" better information.—B. P. B."

MOVING A LARGE ORANGE-TREE (*A. Alves*).—There will be no difficulty with the Orange-tree, if taken up carefully, and placed in a box, or tub. The success will be all the greater if the pot, or tub, were afterwards surrounded with a mound of sweet fermenting material. The sooner it is moved the better.

ORCHARD-HOUSE (*Idem*).—Any house will accelerate or retard, just as it is used. One of the best gardeners in the country used to have a late crop of Peaches in a Peach-house that came in after those on the walls were all over. He could easily have had them earlier than those on the walls.

FARMING (*G. Powell*).—Your capital is sufficient; but we cannot undertake to recommend a locality.

EVERGREEN OAKS (*A Subscriber*).—You may remove them now. Prune the *Coloneaster* in April.

CLIMBERS FOR GREENHOUSE (*A Young Gardener*).—*Tacsonia mollissima*, *Mandevilla suaveolens*, *Rhynchospermum jasminoides*, *Clematis Stebbaldi*, *Passiflora racemosa*, *Habrothamnus elegans*.

APPLE AND PEAR TREES NOT LEAFING (*Enquirer*).—If old trees, their case is hopeless. They must be dead at the root. We remember some young Weeping Poplars moved late in the spring, which did not produce a leaf that year; but did so the year following.

NAME OF FLOWER (*J. Beddard*).—The Christmas Rose (*Helleborus niger*).

NAME OF FRUIT (*Gordonia*).—The Loquat, or Japan Quince, being the berry borne by the *Eriobotrya japonica*. It is closely allied to the Medlar.

ANDALUSIAN COCK (*W. H.*).—The points of an Andalusian cock are those of a Spanish, except, that perhaps from the fact these birds are not so prominently before the public, the upright comb is not indispensable. The colour should be a slate blue; the hackle, saddle, and tail, shaded with darker hues, between a brown and a black. All blue and black birds are prone to throw red feathers, but they constitute a defect.

HENS EATING THEIR EGGS (*Old Subscriber*).—It is generally imagined hens eat their eggs first for the sake of the shell, as their rum does not afford the necessary elements, as lime, chalk, &c., for its formation. If, then, they have not these, supply them at once by throwing down some bricklayers' rubbish, old ceiling, &c. It is difficult, to cure them of the habit when once acquired. A great help is to place a hard egg in their laying-place, and to be careful the real one is removed as soon as laid. Churchill's nest-eggs are the best, and are to be had at Mr. Baily's, Mount Street, Grosvenor Square. They are not expensive.

GOLDEN-PENCILLED HAMBURGS (*R. B. S.*).—Golden-pencilled Hamburgs are identical in everything with the Silver-pencilled, except colour—that is the only difference. No fowl produces so many eggs at so little cost as this breed. They do not sit. There is often a little trouble with them at the first, as they are sometimes sickly when they change soil and climate; but once used to a place they are as hardy as any others. They do not require a large range; but, in common with other fowls, the more space they have the better they do.

CUP-COMBED DORKING (*L. F.*).—We do not think what is called a cup-comb is desirable in Dorkings; but it is, unquestionably, pure.

SILVER HAMBURGS (*H. R.*).—Weight is not a point in Silver Hamburg fowls.

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WEEKLY CALENDAR.

D M	D W	FEBRUARY 12—18, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & M.	Moon's Age.	Clock h. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
12	TU	Noctua nigricaria.	29.481—29.465	36—23	N.E.	—	23 a 7	6 a 5	0 19	6	14 32	43
13	W	EMBER WEEK.	29.443—29.356	29— 0	N.E.	—	21	8	1 43	7	14 31	44
14	TH	Valentine.	29.400—29.322	36—17	N.	—	19	10	3 5	8	14 30	45
15	F	Noctua primaria.	29.925—29.699	34—10	N.	—	17	12	4 20	9	14 27	46
16	S	Tinea nubilea.	29.954—29.811	32—19	N.E.	—	15	13	5 23	10	14 24	47
17	SUN	2 SUNDAY IN LENT.	29.897—29.869	27— 2	N.E.	—	14	15	6 9	11	14 20	48
18	M	Tinea totricea.	30.010—29.980	29— 3	N.E.	—	12	17	6 44	12	14 16	49

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 45.5°, and 31.3°, respectively. The greatest heat, 59°, occurred on the 12th, in 1834; and the lowest cold, 6°, on the 17th, in 1845. During the period 126 days were fine, and on 70 rain fell.

MEETING OF THE LONDON HORTICULTURAL SOCIETY, FEBRUARY 5TH.

THIS was a “special general meeting of the Horticultural Society,” to discuss the subject of our difficulties, the best way to get out of them, and to lay down rules and plans for a third start. The second start began in 1830, when the office of Honorary Secretary was abolished in the person of Mr. Sabine, and that of a paid Secretary was substituted in the person of Dr. Lindley. At that time, the extravagance of Mr. Sabine left the Society in debt to the amount of nearly £20,000. This heavy load has weighed down the energies of the Society ever since; but were it not that a rival establishment sprang up in the Regent’s Park, the Council had reasonable hopes of extinguishing the debt from the profits of the summer shows; but the easy access to the Regent’s Park Garden to the people in London settled the question against Chiswick shows long before the Council of the Horticultural Society seemed to believe that they had a rival to contend with. The rival establishment was also more fortunate in the choice of the Curator, Mr. Marnock, who manages and superintends everything connected with the shows with such a tact, such courtesy, and such system, as no one at Chiswick ever dreamed of; and, as Mr. Marnock rose in the favour and estimation of exhibitors and their camp followers, Dr. Lindley’s rigid discipline at Chiswick went down proportionately in the comparison. All this time the Council acted foolishly, by incurring expenses for which there was little or no call, considering the Society’s financial difficulties, and they did this in the teeth of warnings and prophecies of future danger and of an approaching dead lock.

Mr. Charlwood, of Covent Garden, never missed an anniversary meeting—when the affairs of the Society were under notice—without pushing the most urgent appeals against the directing power; and Mr. Godson, Q.C., was no less urgent, after the fashion of a skilful lawyer. He often told us, at those meetings, that the beds would be taken from under us, some day or other, to pay for the debts of the corporate body; but whether they were to be the flower-beds, or the hotbeds, or chamber-beds, he never said; and lawyers do talk so much that people take little note of what they say, unless they have to pay them. At all events, the Council took little heed to these warnings until it was too late, and they found themselves over head and years in fresh debts; and, in swallowing the leak, they proposed to this meeting to get rid of the garden altogether, and to stick more closely to the London branch of the establishment instead.

This proposition came in the following report, which was read by Dr. Lindley, who took his usual place next to the Chairman. The *Marquis of Salisbury* was voted into the chair:—

THE Fellows of the Society have been made aware by the circular letter of the Council, dated October 23, 1855, that in consequence of the continued unproductiveness of the Garden Exhibitions, some great alteration in the expenditure of the Corporation has become inevitable;

unless the large debt against which successive Councils have been struggling with varying success, for a quarter of a century, is to be much increased.

In the Annual Report made by the Council at the last Anniversary, it was explained that, during the previous three years, the income of the Society had been unequal to its expenditure, and that as much as £1250 had been added to the debt during the year 1854-5.

It had, indeed, been annually shown by the published reports of the Council, that the principal source of income from which the Garden had been maintained, namely, the Exhibitions there, had been gradually diminishing, it having been in 1853 £1715, and in 1854 only £455, while in 1855, instead of yielding any revenue, the Exhibitions had resulted in a loss estimated at about £300.

Such being the case, and in the opinion of the Council no favourable change in the Garden Exhibitions being likely to occur (the experiment of reviving them in 1855 under the best advice which could be procured having wholly failed), the Council felt it to be their duty, as quasi-trustees of the property and interests of the Corporation, in the first place to take measures for securing it against a further increase of debt, and secondly, to consider in what way the corporate means could be best employed with a view of extinguishing the debt already incurred, and at the same time of carrying out those objects for which the Society was incorporated.

It was shown by the accounts laid before the Society at the last anniversary that the income from all sources, except Garden Exhibitions, was £2710 18s.,* while the expenditure under all heads, with the same exception, was £4662 14s. 4d. It will also be found that of this expenditure about £2600 belonged to the Garden, and about £2000 to the establishment in London, to which the interest of debt, salaries, and the cost of the Society’s publications was charged.† Hence it was evident either that the Garden absorbed nearly the whole income of the Society, leaving almost nothing for the London establishment, or that, after defraying the cost of the London establishment, only £700 at the utmost was applicable to the maintenance of the Garden—a sum wholly insufficient to preserve even the lowest possible degree of vitality in such an establishment. It was not a difference of a few hundred pounds, which economy, pushed to the utmost, perhaps might neutralize, but of £2000 a year, which no economy consistent with existence could materially affect.

In the Garden was locked up a very large part of the means at the command of the Council for discharging the debts of the Corporation. It was for forming this establishment that before 1830 had been incurred the great debt of £22,000, which no effort on the part of the Society has since been able to extinguish. In his valuation, made last April, Mr. Glendinning reported that the contents of the Garden were worth £15,656, or £6835 more than the whole debt of the Corporation, floating and bonded, at that time. However uncertain such valuations are, there could be no doubt that in the Garden was to be found a large part of the means which existed of extricating the Society from its difficulties.

Such were the reasons, viz., that £4700 a year could not be paid by £2700, and that the Garden represented a large part of the property of the Society, which forced the Council to the conclusion that, so far as they could discover, that establishment must be wholly or in part relin-

RETURN OF THE INCOME AND EXPENDITURE OF THE HORTICULTURAL SOCIETY FOR 1854-5, EXCLUSIVE OF THE GARDEN.

* Income:	£	s.	d.
Annual Subscriptions	2414	19	6
Admission Fees from Fellows	42	0	0
Quarterly Journal sold	28	1	6
Transactions and Fruit Catalogues sold	10	2	8
Rent of apartments let off	175	0	0
Miscellaneous Receipts	40	14	4
	2710	13	0
† Expenditure:	£	s.	d.
Interest on Loan notes	257	5	0
Rent, Taxes, &c.	257	19	3
Repairs, Furniture, &c.	35	13	1
Housekeeping Expenses	38	15	6
Salaries and Wages, Collectors’ Poundage, &c.	870	13	6
Cost of Quarterly Journal	202	8	11
Library Charges	8	19	0
Printing, Stationery, &c.	23	15	5
Expenses of Meetings, Postage, &c. ..	145	5	1
Costs of Medals awarded	139	5	0
Law Expenses, 1852-4	27	11	10
	2007	11	7
Balance in favour of the Society	£703	6	5

quished. It is needless to say with what extreme reluctance this conclusion was arrived at. Upon public grounds, indeed, the abandonment of the Garden was less important than it would appear to be, now that the magnificent Royal Garden at Kew, which is so much more accessible by water and railway, has gained its present completeness. When the Society's Garden was formed, Kew was neither open to the public, nor in a condition to be of any public advantage. At the present moment it is the finest garden-establishment in the world, and necessarily attracts to itself a large proportion of those who formerly resorted to Chiswick. This is not shown, indeed, by the annual returns of the number of visitors who pass the gates at Chiswick on days not of exhibition, for in 1854 they were rather more than in 1831; but when the names of visitors are analysed, it is found that out of 6573 in 1853, and 5140 in 1854, only 297 consisted of Fellows in the first of these years, and 273 in the second. Nevertheless, the Garden had been the great scene of the labours of the Society; it was there and through it that the utility of the Society had been demonstrated to the whole world; it was the field in which it had gained a reputation that was acknowledged wherever the name of Horticulture was known; and, moreover, it was the place upon which what may be almost called the affection of a large body of its Fellows had been fixed. That such a place should be relinquished was a conclusion to which nothing but the most imperious necessity could have conducted the Council; but the necessity seems to exist, and it is in part for the purpose of obtaining the authority of the Society to make so great a sacrifice, or of hearing what other course the Fellows may have to propose, that this meeting is convened.

The cessation of income derivable from the Exhibitions would have been of less immediate importance had the Corporation possessed any pecuniary resources which might have been employed to make good that deficiency; but for more than thirty years our surplus funds have been continually sunk in improving our fixed property, or in furthering the interests of Horticulture. In the house in which we are now assembled, in its furniture, in its library, and in the Garden, the property of the Society is so wholly locked up, that whenever money has been wanted beyond the funds immediately at command, it has been necessary to have recourse to the bankers, as has been shown, year after year, in the accounts presented at each anniversary. At this moment the advances by the bankers amount to £2400, and must have been greater had not some relief been obtained by the sale, last autumn, of certain Orchids and other plants, which produced the clear sum of £512 6s. In order to reduce still further the existing debt, the Herbaria and old stock of Transactions were ordered to be disposed of. The Herbaria, formed by our collectors of plants, have lost their interest with the Society, having been prepared merely for the purpose of ascertaining the names of the seeds which our collectors sent home: they have not been consulted for many years, and with us have long since ceased to be of utility. They were, however, of much importance in Botanical collections, and therefore the Council directed them to be sold by public auction. This took place last Tuesday, when the sum of about £250 was obtained, subject to the customary reductions, the principal buyers having been the British Museum, the Museum of Natural History, and Baron Delessert of Paris, and Prof. Agardh of Lund.

With regard to the old stock of Transactions, it was last year valued at only £200; it was extremely bulky, was certain to diminish in value rather than increase, and has also been announced for sale by auction.

Assuming the opinion of the Society upon the relinquishment of the present Garden to coincide with that of the Council, another question to be considered is, what future course we should take in compliance with the declaration of the charter that the Society is incorporated for the Improvement of Horticulture in all its branches.

After long and anxious consideration, the Council have arrived at the conclusion, that although the means of the Society no longer permit it to maintain a great and costly Garden, yet, that by some alteration in existing arrangements, and by giving the action of the Society a new direction, it may be found possible to carry out the objects of the charter with unimpaired utility. This they hope to effect by the measures announced in their circular letter of December 24th, viz. :—

1. In place of the Garden Exhibitions, to hold London Exhibitions during the spring and autumn; and to hire some suitable place for the purpose.
2. To hold Monthly Meetings as heretofore, in Regent Street, for the despatch of business, for reading papers or for the exhibition of Horticultural produce; but to discontinue medals at those meetings, and on each occasion, when the formal business is over, to cause an illustrated Lecture to be delivered upon some subject of Horticultural interest, which may be afterwards made the subject of discussion.
3. To distribute seeds as usual.
4. By means of a Collector, or otherwise, to obtain seeds and roots from countries beyond the limits of Europe, for the purpose of distribution.
5. To maintain a very small Garden for raising such seeds as may not arrive in sufficient quantity for distribution, restoring the health of imported plants, and experimental purposes.
6. To institute a regular system of inquiry into subjects of importance connected with Horticulture throughout the kingdom, by means of Special Committees, whose reports will be communicated to the Monthly Meetings, and otherwise made public.
7. To make arrangements for enabling Members to borrow books from the Library, for short periods, upon their undertaking to return them uninjured.
8. Should the funds prove sufficient to secure excellent execution, to convert the Journal into a Monthly Publication, with a coloured plate in each part; which shall not be sold to the public, but printed solely for the use of the members, and regularly transmitted by post to those who may specially give their address for that purpose.
9. It also appeared to the Council worthy of consideration whether, besides the Monthly Meetings and the Exhibitions, a formal Course of Lectures, of an educational nature, upon Horticulture, Garden Botany, or allied subjects, might not prove useful and popular.
10. It was evident that in order to maintain the receipts of the Society in correspondence with the expenditure that must be rendered necessary by the adoption of some of the foregoing suggestions, and to take due advantage of the economy which may result from others, alterations in

the privileges and payments of Members of the Society would become indispensable.

11. They therefore proposed that Members of the Society should, as at present, be admitted to all Exhibitions and Public Meetings, without payment, on signing their names at the entrance.

12. But that all other persons should be required to present a Ticket on entering.

13. That these Tickets should be issued to orders of Members of the Society at the rate of Three Shillings each for the Exhibitions, and of One Shilling each for any other Public Meetings.

14. That Members should have the privilege of purchasing such tickets at a much lower rate if taken in certain quantities, viz., ten Exhibition tickets, or twenty-five ordinary tickets for a sovereign.

15. And, in order to put an end to the loss which has been sustained by those who have hitherto purchased Garden Exhibition tickets without being able to use them in the season for which they were issued, the Council proposed that the new classes of tickets should be available during two successive seasons.

16. In making the foregoing alterations the Council proposed to retain the present rate of subscription (namely, £2 2s. admission fee, and £4 4s. annually, paid retrospectively), wherever it is desired to enjoy all the privileges secured to Fellows by the Charter. All existing Life Members, old Three Guinea Members, and still older Two Guinea or One Guinea Members, would fall into this class; and by them every privilege which the Bye-laws permit would be exercised.

17. But in order to meet the wishes of others, it was contemplated to establish a class of *Subscribers*, who, upon payment of Two Guineas annually (in advance, but without an admission fee), should be entitled to personal free admission to the Exhibitions and Meetings, to purchase tickets at the reduced price, and to all the other privileges of Fellows, except the government of the Society, participation in the distribution of seeds and plants, and the receipt of the Journal.

The Council feel that upon these points some difference of opinion must be expected to prevail. In circumstances so difficult as those of the Society it could scarcely be otherwise. The Council do not cling to their own suggestions. The proposals they have made are the best which had occurred to themselves or been suggested by others at the date of their circular of December 24. Should different views, not inconsistent with the financial safety of the Corporation, meet with the approval of the present meeting, the council will do what lies with them to give them effect. It must, however, be borne in mind, that the income of the Corporation, on the 1st of May last, was only £700 in excess of its expenditure, as has already been stated; and that it has since diminished by deaths and withdrawals. If it is now taken to amount to £2500, it is as much as it is safe to rely upon. On the other hand, the expenses of the London establishment are £2000; and these will be increased if the measures now proposed are carried into effect. It is to be hoped, indeed, that those measures will lead to a material improvement in the Society's means: but upon the whole, the Council cannot regard the income as being likely to do more than balance the expenditure during the first years of the changes now proposed.

To one point only in the suggestions which they have made do the Council themselves desire to advert; namely, the proposal to admit *Subscribers* at £2 2s. a year, without some of the privileges of *Fellows*. It has been much pressed upon them, that it would be better at once to reduce all subscriptions to £2 2s. a year; and to elect Fellows only, with equal privileges, as heretofore. Another proposal is to reduce all the four guinea subscriptions to £3 3s., payable in advance, not retrospectively. They readily admit that such measures might be attended by advantage, if the society possessed the means of trying so serious an experiment. But when they remember that the first alteration would entail a certain loss of more than £1000 a year,* leaving the Society with an income considerably below its expenditure instead of beyond it, unless there should be a large and sudden accession of new members; and that the second would be attended by the sacrifice of nearly £500 a year, they feel that it is not for them to recommend either proposal to the sanction of the meeting.

After the reading of that report, *Earl Grey* rose, and proposed the first resolution in a speech after the model of those speeches on "moving an answer to the Queen's speech" in Parliament—a perfect echo of the different topics touched on in the report. Alas, for the glories of Chiswick! The Council hereby acknowledge that they could not see their way down to the Chiswick Gardens, and Earl Grey could not see how they could. He lamented, as much as any of them, or as much as all of them

* The number of Fellows of the Society of all classes, on the 22nd of last month, was as follows:—

Life Members	238
Paying 4 guineas annually	(1) 460
" 3 guineas "	(2) 55.
" 2 guineas "	19
" 1 guinea "	15
Abroad, their Subscription suspended	12
	— 819
Honorary Members	7
Foreign Members	15
Home Corresponding Members	57
Foreign Corresponding Members	137
	— 216
	1035

Hence (1) 460 diminished by £2 2s. each represent a loss of £966.

" (2) 55 " £1 1s. " " 57 15s.

£1023 15s.

put together, the necessity of being turned out of this beautiful garden; but, in his opinion, there was no help for it; the Council said so, and, of course, they ought to know best; and there was nothing for it now but to split the garden from the London branch, just as the Council advise in their report. This resolution was seconded by the *Hon. W. J. Strangeways*, who is a great gardener and practical botanist, and, of course, was as sorry as the rest of us for this turn out.

Mr. Godson, Q.C., rose to propose an amendment to this resolution in a long, bantering speech, but he mercifully abstained from personalities, and all angry-like insinuations. He began, by wondering that the noble earl, or the honourable council, knew no more of gardening than to split a tree down through the middle, and to cast away, perhaps, the best half of it, in their attempts at renovation. He said he was not much of a gardener; how could he, with the bar always in his way? but he had sanguine hopes of euring this tree, sooner or later, if we would but give him his own way; not by splitting down the middle, but by grafting young scions here and there, that is, on the London half and on the half at Chiswick, "by lopping off"—(*hear, hear*)—an awkward bough here, or a stubborn bough there, which would not yield to be trained otherwise than as natural to it; by rooting up all suckers from the bottom, by foreshortening the strong rampant shoots in summer, and by giving all due encouragement to the younger spray; in short, he would renovate this tree "on scientific principles," providing we would allow him so many hands to carry on the work. "Give him but nine thorough good gardeners for this work, men who are accustomed to rough it out in all weathers," he would measure out the work for them, show them where the Council did what they ought not to have done, and left out arrears which they ought to have gathered in before it was too late. Here Col. Challoner looked very hard at the Duke of Northumberland, and Mr. Hutt looked hard at the gallant colonel—the three are on the Council—but Mr. Godson went on and on, fumbling among his papers all the time, like most lawyers. On drawing himself up for another effort, there was a pause, and the *Duke of Northumberland* rose with such a good-humoured smile, and complimented the lawyer on his practical knowledge of gardening, and his skill in imparting his enthusiasm to the meeting, that his grace would be most happy to make room for the nine assistant gardeners on the Council. No; but that was too much good nature on the part of his grace, who, in his turn, would be sure to spread the contagion of his own good intentions and noble qualities among the assistants, that the chances were they would be so good-natured at last, as would unfit them for such rough work as trenching, or retrenching, a whole garden!!

When the amendment for a Select Committee of nine was about being put from the chair, Earl Grey yielded. His practised eye could see how the wind blew; and he declined to test the strength of the Council by a "division;" therefore Mr. Godson's amendment was carried, and there were no objections offered to any one of the nine who were elected for a Committee of inquiry into the practicability of carrying on the garden. The Committee are to have their report ready by the 11th of March; and this meeting was adjourned till then.

The whole went off in perfect good humour. There was a good deal of talk, however. *Mr. Charwood* came forward, and told the Council that Nemesis has come at last, as he often foretold them she would; but who would have thought of retaliation on pancake-day? *Mr. Bohn* spoke two or three times in favour of retaining the garden, and almost hinted, each time, how much better it would be to put our hands into our pockets, and pay off the debt at once, than to lose the finest garden, or, at least, the finest orchard, in Europe. *Mr.*

Strickland spoke nearly to the same effect, and said that such of the Fellows as lived far off in the country, like him, had no pleasure in pop-shows in London; but a visit to the garden was always gratifying and instructive: and *Mr. Beek*, the great florist, having thought that he, or we, were challenged, by one of the Council, to prove the least partiality, on their part, in the distribution of rare plants, got up like a man of business, and told them fearlessly that their partiality was as notorious as their want of judgment, without any circumlocution. He instanced some *Phalanopses*, which he said were in the hands of favourites long before their next-door neighbours had heard of them from the Society. Therefore, to give him an opportunity of proving this statement, both sides pressed him much to be one of the Select Committee, which, however, he declined, for want of time. Several others declined on the same grounds. At last the following were appointed: *Mr. Godson*, who will be the Chairman, no doubt, the *Rev. H. Harcourt*, *Mr. Bohn*, *Mr. Osburn*, *Mr. Veitch, jun.*, *Mr. Good*, *Mr. Gray*, *Mr. Simpson*, and *Mr. Paul*.

The meeting, on the whole, was well attended; and every branch of the craft was well represented. Say practical botany by *Sir W. Hooker*, *Dr. Royle*, and *Mr. Bentham*; floriculture by such pillars as *Beek*, *Turner*, and *Edwards*; the nursery and seed trade by *Charwood*, *Henderson*, *Paul*, and *Rivers*—as men born in the nursery, and kept there since they were in long clothes; practical gardening by such names as *MacArthur*, *Glendining*, and *Ferguson*, who went back to the nursery after they were full grown, with *Beattie*, *Booth*, and *Beaton*. The amateur class was very highly represented, and both Houses of Parliament the same. Altogether we mustered hard upon a hundred. One Duke, one Marquis, one Earl, two Lords (Downs and Ilchester), *Sir P. Pole*, *Capt. Clark*, *Mr. Leach*, and those aforementioned, were all the familiar faces I noted down.

In conclusion, I have been asked, here and in London, to give my own common-sense view of the affairs of the Society, and was told that morning—twice in Covent Garden and once in Mr. Stevens's sale-rooms hard by—that the Council must be in "a flat minority" on the case they made out; that their ideas were thought to be perfectly absurd by the practicals round London; that the whole scheme was meant for one man's interests; and that the Select Committee would oppose that scheme.

After hearing all this, and after knowing as much about the doings of the Society as any gardener whatever, and more than most of them, it strikes me as more honourable that I should not say a word on that head while the coroner's inquest is sitting to see if the Society be dead or not; and it was for the same reason that I refused "out and out" to be one of the jury.

D. BEATON.

CRIMEAN VEGETABLES.—"With respect to culinary vegetables, they appear in general not to flourish on the southern coast. They are not so delicate as the different kinds of cabbage at home. Spinach is very bad. Lettuce must be sown in autumn in order to have heads in the spring. If it be sown in February and March, it will spring up, but at the same time bear a stalk. Peas and beans only succeed in very moist situations, and artificial irrigation is of very little use. All the turnip family rise out of the ground, and only produce inconspicuous and generally woody roots. This is especially the case with the carrot. In order that vegetables should succeed, the earth must be thoroughly manured: according to Mr Rögnér, it ought not to contain less than three parts of manure."—(*Koch's Odessa and the Crimea.*)

FRUIT-TREES, THEIR BLIGHTS AND OTHER AILMENTS.

(Continued from page 235.)

THE PEACH AND NECTARINE.—Having, in previous remarks, dealt with the Apple, the Pear, and the Apricot, I now proceed with the Peach and its relative, the Nectarine. The evils which, in the main, befall these delicate trees are the Aphides, the Red Spider, the Mildew, the Curl, the withering at the points, and the Gum; a tolerably full catalogue, certainly. I will not take them consecutively, but would rather deal with them in the order in which they generally occur during the round of a season.

First, then, the *Aphis*, *Persicæ*, or *Peach-fly*. Rarely does a season pass but these haunting little rogues make their appearance just as the trees are in full blossom; or, rather, perhaps, just as they are going out of bloom. To say that tobacco is the best remedy at present known, is to say what everybody knows full well. I must, however, speak of the modes of applying it, and the periods for doing so; for although most persons admit the necessity for its use, yet few, I am assured, are aware of the immense importance of the utmost promptitude in its application. There is no doubt, that if the *Aphis* is thoroughly extirpated the moment it appears, there is little occasion for anxiety concerning it during the same season. I have known the beauty and regularity of a Peach-wall irrecoverably destroyed through underrating the evil consequences arising from the attacks of *Aphides* only for a few days; therefore, I say, the moment you see one, apply the tobacco. I am not aware that there is any application so good out-doors as tobacco-water. This is rather expensive, and my practice is to syringe the trees well with ordinary soap-suds, or soft-soap-water, the afternoon previous to using the tobacco water. I use soft-soap at the rate of not quite two ounces to a gallon of tepid-water. The next day, I brew my tobacco liquid, which is generally a mixture of shag tobacco and tobacco-paper; and I must confess, that although I use the paper with a view to economise the tobacco, I am not at all assured it does so. To such an extent does the adulteration of tobacco-paper extend, I have been told that twenty pounds of genuine tobacco refuse will make, at least, a hundred weight of tobacco-paper. Some of these worthies, collecting all the refuse of the paper warehouse, make up a most economical mixture for the manufacture of tobacco-paper, by watering the mass copiously with a little of this and abundance of lamp-black.

If any amateur is trying his hand for the first time, I advise him to use shag tobacco at the rate of four ounces to a gallon of water, well squeezed out. This, well syringed over every part the day succeeding the soap-sud application, will go far towards the entire destruction of this *Aphis*; but if any show signs of life the succeeding day, they must not be allowed to rally, but receive another dose. Some persons have portable coverings, by which they can fumigate out-door trees, and to this there can be no objection.

THE CURL.—I really scarcely feel qualified to say much about a cure for the "Curl," which is the same thing, I presume, as the "Blister." I have had as little of this Blister, or Curl, in my day, as any person. I may pick half-a-dozen of these crumpled leaves in a season from many trees; but they are so rare, I never care a button about it, simply picking those infested away. I am not a deep-border man. I secure dry subsoils, and plant on platforms, introducing a little pure "maiden" turfy loam; assisting cases of over-bearing, weakness, &c., by generous top-dressings, or by liquid-manures. I have noticed, that I have most commonly met with blistered leaves on what may be termed bad Peach soils, such as are clammy, poor, and old; seldom, I think, will

they be found infesting young and fresh trees on walls. Drainage, the removal of soil about the roots, and, above all, securing well-ripened wood, appear to be the best preventives.

THE GUM.—The prevalence of this in Peach and Nectarine-trees argues either a depraved and weakened constitution; or injury from wounds; or both. Here, again, we are strongly reminded of the immense importance of well-ripened wood. The least wound is sufficient to cause Gum in trees whose wood has been badly ripened for years; whilst in those well-ripened it is somewhat difficult to induce it; this alone points to the cause. Of course, all careful cultivators avoid wounding the branches of their trees; if they should meet with an accident of the kind, I know of no better plan than to take means immediately to exclude the air, and to promote a re-union of those parts which had been violently separated, thus:—Suppose a workman had struck his spado against the bole, or a portion of the main branches, and created a considerable wound, I would take a sharp knife and remove all bruised portions, and then apply a plaster; one of the best with which I am acquainted is composed of about equal parts clay, cow-dung, and lime. This must be enclosed in something, and any strong, coarse cloth, or thin, old carpeting, that will endure for twelve-months, at least, will answer. By that time, if the tree is healthy, there will be new bark, or, at any rate, a kind of callosity, which will bid defiance to the weather; the rest is simply a work of time.

THE RED SPIDER.—This absolute terror of the gardeners of the olden time, and plague of our present professionals, is well known to be one of the greatest enemies of the Peach and Nectarine, whether in-doors or out. There need not, however, be half the alarm that exists about this diminutive scamp, for he is well known to abhor two things;—an almost constant wet condition of the foliage, and sulphur. Of course, all good cultivators use the syringe occasionally; but I naturally pause, before I recommend that out-door Peaches be kept constantly wet in the foliage for many days together. Sulphur, then, I recommend; not a mere dusting only with the powder puff, but an annual application in such a way as to preserve its virtues for many months where these rogues love to resort; in other words, from March to the end of September.

My practice has been to apply a mixture, by means of the syringe, the moment the Peaches are pruned and trained, which, with me, has been annually by the middle of February. The mixture is nearly the same as the general wash for fruit-trees, except that I put much more sulphur in it. Soft soap, nearly three ounces to the gallon of water, well beat up, and about a pound of flowers of sulphur; the whole thickened with finely-strained clay until nearly a paint in consistence, and we have, generally, added a few handfuls of fresh lime. This forms a regular coating all over the wall and wood of the trees, and the virtues of it remain through the whole summer. With this application, I have never been troubled with the Red Spider in any degree worthy of notice. Indeed, when it has shewn itself it has not been before the beginning of September.

WITHERING OF THE POINTS.—This is an ailment with which I have had little to do for the last score years; but I have frequently observed it in other gardens. That it arises chiefly from ill-conditioned or badly-ripened wood, there can be no doubt; and this, of course, refers us to the question, Why is the wood badly ripened? This may be the case for more than one reason. The soil may be too rich; the wood badly thinned and trained, or the aspect may be ungenial. But above all these evils, that of highly exciting soils, or composts, is, in my opinion, productive of the greatest mischief, especially to young trees in the fourth or fifth

year of training. Trees of about this age, which had been about two or three years removed from the nursery, and planted against the garden-walk, in what were termed capital borders, I have noticed several times, during the last thirty years, as producing young shoots of four or five feet in length, and gross in proportion; and these, during the months of October and November, quailing beneath the autumnal frosts, when the wood of mature trees, under proper management, would bear a zero thermometer. Such are startling facts, and might well teach us a lesson in more things than Peaches and Nectarines. Such young trees, and under such circumstances, I saw at Heaton Park, the seat of the Earl of Wilton, about twenty-six years since, when an old friend of mine, now no more, was gardener there. These trees, in the month of October, had one-third of the extremities of their young shoots withered, and, indeed, for some distance below the withered portion there were livid and cancerous blotches, shewing, plainly, that the whole system of the tree was diseased, less or more. On saying to my friend, that the trees were too gross; that the border was an overmatch for the climate; he stoutly denied it, and said that the dirty atmosphere of old Mancunium was alone to blame. Now, on examining this made border, I found that it was almost equal parts manure and the richest of adhesive loams. Such a border, in the south of France, or, let us say, in Cincinnati, U. S., would, perhaps, have been the very thing.

And, now, let me close these practical observations on Peaches and Nectarines by recommending preventive before corrective measures in the management of these delicate trees. They are easily grown well, as easily offended, and the abstract of really good culture may be thus given:—Do not pamper them; endeavour to obtain wood neither strong nor weak; seek to equalise the summer spray by early disbudding and thinning, and, also, early training; do not retain one more shoot than is requisite after the end of June, and be sure to keep the finger and thumb at work once a week during June and July. One more point, I had almost said paramount to all, is—be sure to keep them free of insects.

R. ERRINGTON.

ADVANTAGES OF HAVING A HOME—"A living man without a house can not take root. A man at a hotel is like a grape-vine in a flower-pot, movable, carried round from place to place, docked at the root and short at the top! There is nowhere that a man can get real root-room, and spread out his branches till they touch the morning and the evening, but in *his own house*. If I could, I should be glad to live in the house that my ancestors had lived in from the days of the Flood! That cannot be, for in ascending the line of ancestry I find the people, but not the houses; and it is more than suspected that some of them never owned one: My father's house! It is like a picture rubbed out. The frame and canvass are there, but strangers have possessed it. The room where I was born, where my mother rocked my cradle and sang as angels do, where she died, where all my boyish frolics began, and life spread out its golden dream—they are all overlaid by other histories. We planted pleasant things in the old house, but the Assyrians came in and settled down upon them."—*Ward Beecher's Thanksgiving Sermon*.

QUESTIONS ABOUT VINERIES.

THERE are several long letters before me on Vineries, one containing four pages of queries. The printing of these in full would occupy much room, and we have not time to answer such letters privately, unless in very special cases. I have not had much reason to complain,

lately, of letters being sent contrary to the express orders of the Editor; but it is really wonderful what expanded ideas some of the good public entertain of our duties and capabilities. "F. H." will be obliged for some definite information to be sent, addressed to the said "F. H." at a certain post-office. The said "F. H.," of whom I know just as much as I do of the man in the moon, very unselfishly and innocently imagining that his being obliged will more than compensate me for some hours labour, several sheets of paper, and a couple of postage stamps. With every desire to oblige, there are limits beyond which even prudence will not permit us to go; and, therefore, all correspondents should bear in mind that, though their inquiries are addressed, as they ought to be, to the Editor, private replies can be given but in special cases; and that they should send their inquiries in such time, that waiting from eight days to a fortnight will be no detriment to them.

I shall now notice these inquiries in a very random manner.

VENTILATION.—"Vinory, twenty-one feet by fourteen feet; roof fixed; glass, sixteen-ounce squares, nineteen inches by fifteen inches; whether to have four or five of these squares to slide down, or to have three or four holes in the back wall with slides for back air? and in front, whether would one-foot wooden shutters all the way, or glass, be best?" With such an amount of glass in the roof, and the bar-rafter so narrow as to be bevelled off to one inch, it matters very little, as respects the front, if not more than a foot in depth, and the wooden shutters will be less liable to casualties. For the back, for the same reason, I would prefer wooden slides, say six, each two feet long by one foot wide, and more especially if the wall has to be built. Were the wall built, rather than cut it to pieces, I would prefer as many openings in the roof as would give a similar amount of air, by small frames, to lift on hinges, or to swing upon pivots.

The *ends* of such a house I prefer being of glass, or, at least, all the upper parts of them; for then, supposing the house to face the south, you will obtain the rays of the sun more directly, morning and evening. In cold weather, this will necessitate more artificial heat than if it were made of brick; but a covering could be used in severe weather, and the house will look more cheerful, and every thing will have a chance of doing better; while I presume the glass will be as economical, at first, as any thing else that could be used.

"WALK IN SUCH A HOUSE, whether along the middle or all round?" Purely a matter of taste and convenience. If, as you propose along the middle, you will have five feet or more of a border on each side; by taking the walk round, you might have a three feet border, back and front of the house, and a five feet bed in the centre, which you might allow to remain as a bed, or convert into a stage, or a pit, according to the bye-uses you wished to turn your Vinery to. A pit, in such a house, would be extremely useful; for, filled with sweet fermenting material, as tan or leaves, it would forward many little desirables, and supply a nice, moist heat for breaking the buds of the Vines.

CONCRETING AND DRAINING BORDERS.—This will apply to several inquirers. Whenever there is a cold, unkind subsoil, it is advisable to resort to both these processes, as you thus escape stagnant moisture, and prevent the roots getting down deep, to which the roots of all trees have a tendency, and the natural result of which is to produce luxuriance at the expense of fruitfulness. A correspondent proposes placing a layer of broken bricks over the bottom of his border, and covering these with grass sods; but in an adhesive subsoil that would not be sufficient. The water would accumulate about the bricks, and the best roots would be clogged and rotted there. There are many situations where neither

concreting nor draining is required; but, in most cases, it is preferable to secure the means of both. The following may be considered an outline:—Prepare the bottom of the border, some two-and-a-half to three feet below the contemplated surface, and as little as may be beneath the natural surface of the ground; let the bottom of the border slope from back to front, at something like one inch fall for one foot in width, if the nature of the ground will permit of as much. Place along the front of the bottom of the border a drain from one to two feet deeper still, and filled up with rubble. In extreme cases, cross drains every twelve feet may also be necessary. The concreting the surface may now be proceeded with. Taking about six parts of clean gravel and one of quick lime, mixing it with a sufficiency of water, and laying it down quickly about two inches thick, beating it level, and then rolling it firm. On this, if come-at-able, place six inches of rubble, as broken bricks, &c; cover with rough soil first, and then put on the general compost. With such preparation, it is next to impossible for the roots of Vines to be anything but right.

COMPOST FOR BORDERS.—A correspondent, whose proposed house is thirty feet by eighteen feet, has the top spit of a sandy pasture, a quantity of raw leaves, and raw stable litter, bone dust from button mills, and about ninety stones of large horse bones, having a quantity of decomposing matter about the legs and feet, buried in the compost twelve months, and solicits Mr. Errington's opinion, which, I have no doubt, our friend will give, especially if there should be the shade of a shade of difference between our opinion. Now, had I my choice, I would prefer a hazel-coloured loam, and to lighten that by lime-rubbish, or other calcareous matter, such as nodules of chalk; but wanting that, I should be satisfied with the kind spoken of; but if I used the quantity of bones, broken into small pieces, I would not be over lavish of the raw leaves and dung, as the border would sink so much afterwards; but I would prefer organised matter more decomposed, and yearly surfacings afterwards.

WIDTH OF BORDER.—The same correspondent asks, if fourteen feet would be enough. And, in most cases, for such a house, the half would be enough. I have seen Vines grown in small width, by the addition of annual, rich surfacings. In general cases, the width of the roof offers a guide for the width of the border; but when the bottom is concreted, so that the roots do not descend, I have found Vine roots far beyond the made border. Were it not for the thing not being finished at once—which seems such an eye-sore to many—Vines would be benefited by having additions made to their growing room by degrees, instead of all at once, and then the advancing roots would have fresh material to revel in. Some readers may recollect how Mr. Lane commenced his Vine borders in his Orchard-house. A bundle of fern was laid on the ground, on this was piled up about a good cart-load of prime soil from the common, and on that the Vine was planted, and growing vigorously. Next year, the Vine will have a double quantity, and so, by degrees, the border will be made, the Vines every year having the advantage of fresh, rich feeding-ground, and the border costing no more in the end than if it had been made all at once; when some time must have transpired before yielding any return for the outlay.

TIME FOR PLANTING.—No time hardly comes wrong. Autumn, winter, and spring, involves least trouble; but the correspondent whose house will not be ready until May, or even June, may plant successfully then, especially as he has another house in which to grow the plants in pots. When turned out, the roots should be disentangled, without breaking them; and if May or June, by means of heated water at the roots, and mulching, and a little

shading of the tops, care should be taken that the plant does not feel the removal. Where there are proper conveniences, I would prefer May and June to any other time.

PLANTING INSIDE THE HOUSE.—I have recommended this in many cases. The first correspondent referred to, supposing he has his walk along the centre of the house, proposes planting his Vines in the fruit five-feet border, to have a five-feet border outside, and the front wall between them pigeon-holed to let out the roots; and I know of no reason why he should not do so, provided drainage is attended to, and the outside border is but little, if anything, higher than the inside one. Had I my choice in the matter of very early or very late Vines, I should prefer the roof to slope at an angle of less than 45°, and would plant the Vines against the back-wall of the house. The roots being in-doors, I could assist them with warm water, for early work; and for late-keeping Vines, the roots could be rendered dryish, and kept so, after the fruit was ripened, and thus all trouble with an outside border, protecting, &c., avoided. When the stems are trained down the lights instead of up the wood is naturally firmer and shorter jointed. I have, also, seen Vines planted in the middle of the house, and then dividing to the back and front, and doing well; and by either of these processes there is little or no necessity for an out-door border at all, if such houses were not now so generally made *omnium gatherums*, that scarcely a ray of sunlight can reach the soil inside, and it is apt to be clogged with waterings from pots, &c. There is the advantage of having the stems of the Vines always safe, if planted inside in a border, close to the front wall, and that has arches or pigeon-holes; but, as already hinted, to make the most of this arrangement, the soil outside should not be higher than it is inside.

WATERPROOFING OUTSIDE BORDERS.—“I thought if it would do to put gas-tar or coal-ashes on the top of the border outside, to walk upon, as it is now a walk, and then it would not interfere with the present arrangement of the garden; but I would not do this if it was prejudicial to the Vines.” This scheme is in connection with the five-feet border inside, and planting inside. The subject is a large one, and I know Mr. Beaton could give some practical details upon this subject. I do not see why a common hard walk over the border would not answer the ease of our correspondent. That, however hard, would not be so impervious to moisture and air as a walk surfaced with gas-tar. In early forcing, it would be necessary to cover this walk with litter. If waterproofed with a surfacing of tar, no rains would hurt Grapes kept late in autumn; and there would be no danger of such covered ground becoming too dry so long as there was any moisture in the ground in the neighbourhood. We are only groping our way on this subject of concreting and waterproofing borders on the surface—thus almost entirely depriving the roots of air—and I would not like authoritatively to recommend or discommend the practice. In the case of an early Vinery, in which the Vines were planted outside, I covered the border thinly with gas-tar and road-drift, which set almost as hard as slate, and was impenetrable by water. It remained covered nearly four years, the Vines producing plenty of well-flavoured fruit. I then thought the wood was getting a little weaker, and removed the covering, and found the ground beneath it in a very good state, neither dry nor wet, and loaded with roots in fine growing condition. The heat from the sun in summer, and from the fermenting material in spring, had encouraged the roots to the surface, and the same heat had brought moisture, by something like capillary attraction from the surrounding ground. I have seldom left such covering more than seven or eight months in the coldest and wettest months since. In the case of our correspondent, however, I see no reason why his

proposed plan would not answer. I mentioned, some time ago, how Mr. Judd concreted the surface of his outside borders every year, and many adopt a similar plan.

DISTANCE OF HEATING-PIPES from Vine stems planted inside, and from the soil. A few inches from the soil, in the latter case, and from nine to fifteen inches will be quite safe in the other; or even less, if a piece of board stands between the pipes and stem.

HEATING HOUSES AT AN UNEQUAL LEVEL FROM ONE BOILER.—In this case, from the ground sloping to the east, the level of one house is four feet lower than the other. Place the stock-hole and boiler between them, and so sunk that the top of the boiler will be below the lowest pipe in your lower house. From the top of the boiler take a flow-pipe into an open cistern, placed, at least, one foot higher than the highest pipe in the highest-levelled house, and have two more pipes fixed in the cistern, with stop cocks, one of these communicating with one of the houses. Allow the flow-pipe in each house to rise a little to the farther extremity, and there insert a small air-pipe.

KIND AND SIZE OF BOILER.—A small conical, or saddle boiler will heat two such houses. You would require a surface of from three to four square feet to be exposed to the fire.

CHEAP MODE OF HEATING.—In answer to several, I may mention, that I saw a very large span-roofed house heated the other day, with a flue on each side, formed of round earthen pipes, about nine inches in diameter, and cost about a sixpence per foot. With the exception of one or two next the furnace, they stood the heat well, though very hot. They replaced galvanised iron, which had soon decayed.

KINDS OF GRAPES.—For an *early house*, one Dutch Sweet Water, one Royal Muscadine, three Black Hamburgh, one White Frontignan, one Stockwood Golden Hamburgh (in autumn, as it is not yet in the market), one Black Prince. For a *late house*, the grapes intended to hang long, choose Muscat of Alexandria, West's St. Peter's, and Barbarossa; and, perhaps, one plant of Cannon Hall Muscat, with another plant of Black Hamburgh to come early. For a greenhouse, to come late and to have little assistance with extra heat, Muscadines and Hamburghs, with one of Black Prince, will answer best.

R. FISII.

THE STEPPE-WITCH.—"Professor Schleiden, in Jena, in his excellent lectures on the life of a plant, employs the word *burjan* for a particular plant, namely, *Gypsophila paniculata*, which the Russians, however, do not include under the appellation. The *Gypsophila paniculata*, L., a very well-known steppe-plant, is known by the name of *Perekatipole*, or the Steppe-Jumper, and plays the part of the Rose of Jericho, especially in children's stories. This plant (the *Gypsophila*), which has latterly been used in Germany for nosegays (bouquets), on account of its light appearance and pretty little flowers, branches repeatedly just above the root, so that it forms a close round bush. After it has ceased blowing, it sheds its seeds, the principal stalk breaks off at the base, and the round plant is carried hither and thither by the slightest wind. Other small plants, also withered, become attached to it, and they gradually form a thick ball, which in a strong wind is easily carried over the steppe. This is the Steppe-witch, which brings people good or ill luck. It is, however, not always the *Gypsophila paniculata*, L., which forms this ball, and has given origin to all kinds of tales. The *Philomis pungens*, Willd., which is indeed heavier, but likewise grows in the form of a round bouquet, is also carried by the wind through the steppe, and saluted by children as the Steppe-witch."—(*Koch's Odessa and the Crimea*.)

WOODS AND FORESTS.

(Continued from page 258.)

PRUNING.

"P. B.," a correspondent from Nantwich, in Cheshire, writes thus: "Please to inform me when is the best time to crop (lop would be a more correct term) or prune branches of growing forest trees, say about twenty years old. I think I have heard they are not so liable to bleed if it is done when the tree is in full leaf."

This is not, by many, the only correspondent who writes for information on this all-important operation. Unfortunately, too many such correspondents leave a large margin for imagination as to the state the forest, wood, plantation, belt, hedge-row, timber, or single tree is in at the time; whether it has ever been pruned or thinned at all; also, whether the situation of the objects of inquiry is elevated or low; whether sheltered or exposed; and, lastly, the kinds of trees that are supposed to want pruning. All, or as many as may be requisite, of these points ought to be mentioned and described in the correspondence, in order that the right sort of information for the peculiar cases might be given. However, in order that no time may be lost, I have hastened, according to our Editor's request, to reply to "P. B.;" and shall extend the answer, so as not only to meet his question as to the right time of pruning, but also the best methods of performing it. I may, possibly, not meet every case; but I do trust the information I can give, from many years' experience and study on the subject, will be found useful to many whose plantations have hitherto been left uncared for, to live or die, thrive, or dwindle into a state anything but pleasant or profitable.

Previously to entering upon the practical parts of the subject, I would make a few remarks on the use of pruning, and mention the tools necessary for the operation. When profit is the main object in growing timber trees, the use of pruning is to produce a clean, straight trunk or stem in the least possible time. Now, if the Oak, the Elm, and other naturally-spreading trees are left unpruned, the branches may be large, but the timber will be small, and, consequently, not so valuable, compared with the stem of a properly-pruned tree. If the trees grow close together, and the pruning is left to nature, by the lower branches being killed with the shade and drip from the upper ones, the timber will be knotty, and, consequently, fit for nothing but fuel. The most valuable, however, of all trees is crooked or bended oak, and this may be obtained by judicious pruning; of which, more hereafter. Pruning, then, is the art of assisting nature to form trees most suitable for the wants of man.

The tools necessary are only two, a strong knife and a good saw. Two of the latter, of different sizes, would not be objectionable. I have used one with a narrow, long, steel plate, and the other a common carpenter's saw. The teeth should be set wider apart than for sawing dry wood. I would observe, however, once for all, that every saw-wound should be pared quite smooth with the knife (immediately after the saw-cut); and after that I would recommend the wounds, if large, to be painted over with any common oil paint of a non-glaring colour. This prevents the wet from penetrating into the sound wood of the tree. The expense would be well bestowed.

1. THE BEST SEASONS FOR PRUNING.—Our correspondent is evidently afraid that his trees will bleed. I can assure him they will not if pruned any time from October to the end of January, and even after that the Oak, Ash, Elm, and Beech, will not bleed (unless very young) if pruned so late as the 1st of March. Sycamore, Birch, and all the coniferous tribe will bleed severely if pruned during February, March, April, and May. It

is, therefore, a safe practice to prune no trees after January. All winter-pruning ought to be finished by that time, with the above exceptions. In our variable climate the rising of the sap is sometimes much earlier in one season than another, and, in such an early season, if the pruning has been delayed, it ought not to be done till the following season. For all trees that are deciduous, I am decidedly in favour of autumn and winter-pruning. I never found any injurious effects from pruning at that season, providing it was finished early. The pruner will soon perceive if it is too late by the sap flowing out of the wounds; whenever that is observed, he ought to cry, "Hold, it is enough; this business must stop." Summer-pruning, when the trees are in full growth, may be done, if not performed in winter; but the operator must remember that there are two kinds of sap, the ascending and the descending. The first carries up nutriment to support and push forth the buds and leaves, the surplus is evaporated through the pores of the leaves. The descending sap is elaborated by the atmosphere taking in carbonic acid gas through the pores of the leaves. By that elaboration the descending sap is furnished with a substance named *cambium*, which, as it descends, is converted into what is called sap-wood. Now, if any great quantity of leaves are cut off, or pruned away with the branches, it is evident the deposition of the cambium, or formation of woody fibre, will be less, in exact proportion to the loss of leaves caused by pruning when the tree is furnished with those wonderful organs—the leaves. Yet, to a certain extent, pruning may be performed in summer, and the descending sap directed into channels where the formation, or deposit, of wood is the most required; but only small branches should be cut off at that season, and those in very moderate quantities at once. In such a case as our correspondent "P. B.," I would recommend a very gradual pruning, partly for the above reasons, and partly because the severe pruning of trees twenty years old would so check their growth, by diminishing the flow of descending sap, and, also, the pruning off too many branches will admit a too free circulation of air and wind. This admission of too much air suddenly is almost certain death to a plantation, or, at least, a certain stagnation of growth for years to come.

2. PRUNING NON-RESINOUS TREES.—By non-resinous trees is meant all such as do not yield resin or turpentine. In this country such non-resinous trees are deciduous; that is, lose their leaves in winter. Then, as I observed before, is the best time to prune them; though, in extreme cases, they may be pruned moderately in summer. Gum-yielding trees, such as the wild Cherry, should, more especially, be pruned in July and August. The pruning of this section of trees should always be begun early; that is, when the trees have been planted four, or, at the most, five years. The pruning to consist in removing close to the stem all leaders excepting one; and that should be the best-placed and most healthy; also, any strong side-shoots that are likely to rob the main stem should either be cut off close or shortened in severely. Any small, twiggy shoots may be left on, to draw up the sap and keep the trunk sheltered. This pruning should be repeated every second year. If neglected, a great quantity of growth is thrown away; and the strength of the tree exhausted only to enlarge the rubbish heap. Every side of the tree should be furnished, as nearly as possible, with equal-sized branches. If this system is diligently followed, the tree will, when from twenty to thirty feet high, form a pyramid furnished with small branches to the ground. Then, if they stand moderately close, the lowest branches will begin to die. As soon as this is observed, such branches should be cut off clean and close to the stem. After that very little pruning will be necessary.

It frequently happens, in large plantations, that some trees remain, as it were, stagnant in growth, and form no leading shoot. It is advisable with such to head them down pretty close to the ground. They should be cut clean off with a strong, sharp knife, without splitting the stem. This heading-down should be done in February, just before the sap begins to rise. The tree will, most likely, send up several shoots. Towards August they should be all gone over, and the shoots reduced to two. If only one was left, it might, from winds or accident, be broken off from the old stem, and thus a year's growth would be lost. The following season the best of the two may be left, and the worst cut away: all danger will then be past. The after-treatment, as to pruning, will be, of course, the same as that given to trees that have grown away freely at the first.

3. PRUNING RESINOUS TREES.—It is a debateable point whether this class of trees are benefited by pruning at all. From what I have experienced, I am decidedly of opinion that moderate pruning is useful. I go between the two extremes of never pruning at all, and pruning very severely. The great object of the pruner is so to dress his trees that they shall produce clean, straight timber, with as few knots as possible. Hence, I contend that the branches of resin-yielding trees should never be allowed to become large, that is, when intended solely for timber. (For ornamental trees the case is quite different.) All large branches should be cut off at once close to the stem. If there are any small twig branches mixed with the large ones, these I would carefully preserve. A good writer (Sang of Kerk-caldy), on forest-tree pruning, observes, "If a sufficient number of branches are not left on the young tree to produce abundance of leaves perfectly to connect its juices, the timber will be loose in its texture and liable to premature decay." Let this judicious remark be well weighed by the reader, and let him so prune his Firs, Larches, and Pines, that there may always be left a sufficient number of small branches to produce leaves to "connect their juices," or sap, to convert it into sound, solid timber. I need scarcely say, that all branches that are dying, or dead, should be cut off at once, under any circumstances, close to the stem.

4. PRUNING WIDE MASSES OF FOREST TREES.—Under this head all my previous directions will apply, with the addition of judicious thinning, which is of more importance even than pruning. Many woods in Great Britain are planted thick, and allowed to remain so too long, in the mistaken ideas that the trees will shelter each other, grow up straighter, and, being so thick, the lower branches will die, and, therefore, require no pruning at all for many years. It is impossible to calculate the mischief this let-alone system of wood management has done, nay, is doing at this moment. And it is the more to be regretted now that trade is in many places so stagnant; and our workhouses filled with many poor men; when so much labour might be profitably employed in improving our wide masses of neglected forests and reclaiming waste lands. It may, perhaps, be said, what do our unemployed artisans know of forest work? I answer, they would soon learn, if a few practical woodmen were distributed among them. I never found a deficiency of men when work in the forest or waste lands was determined to be done. If Sir Joseph Paxton requires a thousand or two of labourers for the Crimea, has he not double the number applying directly for the work?

T. APPLEBY.

(To be continued.)

A FEW WORDS TO COTTAGERS ON FENCES, TREES, AND DUNG-HEAPS.

ONE of the most important adjuncts to a cottager's garden is its *fence*, though this, unfortunately, is not

always so good and orderly as it ought to be. Perhaps there may be some excuse in certain cases; but a slovenly fence tends very much to mar the beauty and general appearance of a cottage garden; and, as the greatest number of such gardens join a public road, it is desirable to make them as orderly as possible. In most, if not in all, cases, a quickset-hedge forms the neatest and best fence, unless a brick or stone wall can be had; these being preferable, on the score that fruit-trees may be planted against them with advantage, while the roots of a hedge, more or less, rob the ground they grow on; yet a nice quickset-hedge, kept in good order, looks better than a wall, in a picturesque point of view.

We often see a high mound, or ridge of earth, surround the garden, with a non-descript fence of live and dead wood on the top of it, and its sides covered with coarse grass and weeds of various kinds, which weeds are allowed to luxuriate there, and scatter their seeds over the garden; that nothing can be really worse than this, few will deny; but, bad as it is when such plants inside the garden are allowed to ripen their seeds, it is almost equally so when the outside weeds do so likewise; for it often happens that coarser and more troublesome varieties are to be found there. Now, though the extirpation of weeds outside the garden would not be practicable, yet they might, certainly, be prevented ripening and disseminating their seeds with very little trouble. A scythe, brushing-hook, or other tool of that kind, would speedily cut off the tops of all that are likely to seed, and they do not so readily make head again. This is a much more important matter than is generally supposed; for, assuredly, nothing can look worse than to see a forest of thistles waving their downy plumes in earnest intent of scattering their offspring in all directions; and it is wonderful how far their beautifully-winged seeds are wafted through the air, even in a still day in September. I have followed these unwelcome travellers a full half mile from where they started from, when there was exceedingly little wind; and, although it is questionable whether every seed is perfect that flies to so great a distance assisted only by the gentle current of air, still, there is likely to be some that will grow; and the numbers are so great, that if only one in twenty vegetates, there are sufficient to contaminate a neighbourhood very often disseminated from some piece of copse that has been cut the preceding season. At all events, it is incumbent on the cottager to prevent, as far as possible, these pests from finding their way into his garden, although they are not the most troublesome weeds found there. Dandelion, Couch-grass, Crowfoot, Docks, and some others, are much more abundant, to say nothing of the hosts of annual weeds that find their way there at all times. Now, one of the best ways to hold such intruders at bay, is, to keep them as far away as possible from the frontiers; and, should circumstances compel, the adoption of a turf bank, with its accompanying mixture of dead and live wood, the cottager should prevent, as far as possible, seedling weeds running up through them; and mow or cut the herbage on the bank frequently. Frequent cutting will destroy all but the useful grasses and clover, so that the bank will be much more easily kept clean when once it has been made so.

It is not unusual to find *Fruit-trees* planted in cottage-garden fences, and the plan is worth more general adoption; not in fences adjoining public roads, by any means, as that is a temptation not easily resisted in every case; but the other fences might have a Damson, or hardy Plum, now and then planted in them. Apples might sometimes be introduced, but they suffer so much from winds that they cannot well be placed in such positions; but a Cherry, or Green Chissel Pear, looks well when in bloom, and their produce is often of value as well. I might here remark, that it is imprudent to plant such trees on the south sides of

gardens, but on the north and west they may be of great service, and also on the east they are useful when there is no other shelter on that side.

It is often to be regretted that the cottager's anxiety for fruit leads him to plant more fruit-trees in his garden than is compatible with the production of vegetables; and I have heard many of them regret having planted so many, when they got up into bearing condition, for then it seemed too considerably a sacrifice to destroy trees that were just in their prime; trees which the cottager grafted himself, the grafts probably given him by some friend, which adds considerably to the value of the tree. Perhaps, the better way would be not to plant so many at first, and increase the space for small fruits, whose existence is much shorter.

Another point of importance to the cottager is his *manure-heap*, to increase which all legitimate means should be adopted. All the refuse of his garden, which his pig will not consume, must be carried there, and all weeds, except the worst description of perennials, as nettles, docks, and couch-grass. Besides these, all road scrapings, parings of ditches, or other substance that vegetation has been seen to thrive upon; added to this, may be the dung of the pig-yard, and any more that may be accessible; and, now and then, the mass will be all the better by being moistened with the house-sewage. This is more especially useful in summer; and the whole may be occasionally turned and mixed, so that it be thoroughly blended by the time it is used. It, certainly, need not remain until every particle be decayed, because, before that process was finished there would be much waste. Observe, I have not advised the use of lime in such mixture, because I think that lime and dung ought never to be mixed together in one heap—the one destroying the other so much. But when animal-manure forms no part of the heap, and where large quantities of rough herbage are to be decomposed, there is nothing so good as lime for quickly effecting that object. Chalk, peat, marl, and other substances, used extensively in some places as fertilisers, may also be applied by the cottager, if done in a judicious way, and where they are within his reach; but everywhere their utility must depend on their being found near the spot.

J. ROBSON.

POINTS TO BE THOUGHT ABOUT IN FEBRUARY.

(Continued from page 330.)

GREENHOUSE.

For many purposes, a *Sweet hotbed* is of great consequence for three months to come, for sowing seeds, grafting, and propagating by cuttings. The most come-at-able materials for this purpose are, generally, stable-dung and leaves. The leaves will heat when thrown together; and for a mild heat nothing equals them, as it is always so sweet, that if used at once the effluvia will injure nothing. Dung requires more preparation, and it is best to throw it together, and water it if at all dry; and when it heats well, turn it over, putting the outsides in the middle, and the middle to the outsides, and covering the heap with a little long litter, to cause it to heat equally, and keep the winds from it. When pretty well sweetened, but not greatly decomposed, mix it with an equal, or a double, portion of leaves, and though the heat will not be strong at first, it will be more regular, and last much longer. The improvements in heating will cause the rising generation to be next to ignorant as to how to make a hotbed properly, so as to retain its heat for a long time. If the material is too much decomposed, or too firmly beat together, the heat will soon go; because there is either no decomposing material to furnish it, as

the air cannot get at it, to keep it slowly and regularly going on. If too dry, or too open, too much air will enter, and thus, also, prevent the heat needed for decomposition. This matter fully understood, amateurs, and the possessors of small places, are likely to do much more with hotbeds than the young gardeners in large places, where hot-water is used for almost every thing. When the glass is kept on, and the moisture rising from the bed, and condensed against the glass, is clear as dew-drops, almost any thing may be trusted inside. Before introducing plants, however, it would be advisable to place a layer of dry coal-ashes over the surface, which keeps all clean and nice, and prevents excess of vapour and moisture.

We shall suppose that this bed should be such as would suit hardy *Cucumbers*. One of the first things to be sown, by those who admire them, are *Cockscombs*, as they require a high temperature when young, and to be reared early, when wanted in July and August. Prick out the seedlings in a pan, an inch apart, as soon as they can be handled, and then pot singly in three or four-inch pots, and allow them to remain until the comb shows itself, and you can judge from its shape and colour what it will be; then keep repotting as often as necessary, and give bottom-heat until the combs are large sized. *Thunbergias* require a strong heat to bring up the seed well. *Balsams* will be early enough in March and April, unless there is an opportunity for giving them room as soon as potted off, and a lower temperature, 10°, at least, lower than *Cockscombs* after they are potted off. Many of the tender annuals to be grown in pots in summer and autumn may be sown about the middle of the month; also seeds of greenhouse-plants generally.

Such a bed is just the place for grafting *Camellias*, *Oranges*, and many other things. For *Camellias*, the single red makes rather the best stock; and if in small pots, and well established, and just beginning to grow, a piece of wood with a single bud of the desirable kind will be sufficient. One-year-old seedling *Oranges* are also easily managed. All that is wanted is merely to remove a small slip of wood and bark from the stock, and a similar piece from the scion, and bind them together, so that the inner bark of both meet. The moist heat from the hotbed causes expansion in both, and the union is quickly effected. In sunny days they will require shading. The beautiful-scented *Daphnes* may thus be grafted on the Spurge Laurel and *Daphne Mezereum*, but will not like quite so much heat as the *Orange* and *Camellia*. I have sown seeds of the *Orange* and *Lemon* in January, and had plants strong enough for grafting in May; but I think one-year-old plants are best. It is easy to graft good-sized plants all over in such a hotbed, merely by pruning in the old plant and laying it down. This involves much less trouble than inarching. This month is quite early enough to begin propagating greenhouse plants; but *Dahlias* that are scarce, *Verbenas*, *Geraniums*, and all kinds of bedding-plants, may be safely proceeded with, and those that are scarce may have their tops frequently taken for cuttings before bedding-out time. Before being moved out such plants must be gradually hardened off. Such a hotbed will also just be the place for starting *Gloxinias*, *Achimenes*, and *Gesnera Zebrina* to bloom early. *Gloxinias* may be set in the old pots before they begin to show bloom, and then shaken out of the old soil and transposed to new in well drained pots, the soil having previously been heated and aired. A common, airy greenhouse does not, however, suit this plant well; and, therefore, if there is no other place for placing them when blooming, I would advise growing but few of them.

The temperature of any greenhouse, from July to the end of September, is high enough for them, but they cannot get there the close, moist atmosphere they so greatly delight in, as well as shading from the brightest

sun. I have frequently had them in good order, in a greenhouse, at one end kept close and moist, the pots standing on damp moss, the plants being hardened off by degrees, and brought from the hotbed or hothouse at the beginning of July. When grown in a hotbed, it is necessary to admit a little air, however small, constantly at the back, as the least steam or condensed moisture is apt to injure the foliage of this and also the *Achimenes*, and more particularly the *Gesnera*. These two latter, I would advise treating much the same. From plants that have been at rest two or three months, select good-sized, fresh tubers, and place them rather thickly in shallow pans filled with sandy leaf-mould and loam, with a little peat, just covering them over, and place them in the bed. In about a week, water, and when the young shoots are several inches in height proceed to place them in their blooming-pots. By this means the masses in the pots may be made quite symmetrical, as the strongest plants may be selected for the centre, and no stopping will be required; which would cause the bloom to come much later, if not also weaker. One tuber of the *Gesnera* will make a fine plant in a six-inch pot; but for good masses, it is customary to place from five to seven tubers in a twelve or fifteen-inch pot. I consider the first starting, and then repotting, the best mode. To get these good at an early period it is essential that the tubers be early ripened, and duly rested in a dry state. It is very common to see these things, when done flowering, left to shift for themselves anywhere out-of-doors, in summer—not unlikely, somewhere in the shade. The early ones should go under glass, be kept rather close, water be diminished by degrees, and as soon as the stems begin to wither the pots should be tilted up on one side, alike to prevent water reaching them, and to catch every sunbeam possible. Where the *Gesnera* is only just out of bloom, or dying down, it will be time enough to start it in April or May. The first ripened of these tribes should, therefore, always be marked; for even than *Achimenes*, few things look better in July, if the greenhouse is kept at all close and moist.

My space is occupied with these random reminders, and I must only add a caution as to the *Tropaeolum tricolorum* and others. Tubers which started early in autumn, and have been growing all the winter, will be proceeding over their trellis. If that is at all thick no tying will be necessary; but every day, almost, the points of the shoots must be laid to their proper place, and they will catch of themselves. As soon as the later tubers show their small strings of a shoot they should be potted; but if placed at once in their flowering-pot, water should be given so as to wet the soil only as far as the roots extend. This plant hates every thing like forcing. From 45° to 50° seems to be the temperature in which it grows best, and, therefore, those that commence early make the best plants and flower best. Sometimes these roots will rest for a year or two, and then come strong of their own accord.

Roses may also now be introduced into the forcing pots, along with *Lilacs*; but, for a fine display in May, these should have been under glass in December, and little more heat given than necessary to keep out frost. Those to bloom in June, in pots, should be introduced now, after being previously protected. In such a house, with a temperature seldom above 50°, from fire heat, the *Roses* will break strong if the roots are placed in a plunging medium. Many, for this purpose, prefer from fifteen to eighteen inches of sawdust, rather new, which will yield, from time to time, a very gentle heat. This heating property, however, unfits saw-dust for packing roots that are to be kept in a state of rest. I once knew carrots one mass of rottenness from heating; and another time, I heard of a valuable collection of *Dahlias* destroyed from being packed in it.

R. FISH.



CETERACH OFFICINARUM.

THIS bears the various English names of *Scaly Spleenwort*, *Rough Spleenwort*, *Scale Fern*, *Scaly Hart's Tongue*, and *Miltwaste*.

The *root* is fibrous, black, tufted, and scaly at the crown, penetrating deeply into the old mortar of the walls, and into the clefts of the limestone rocks, on which it delights to grow. The *fronds* are evergreen, numerous, tufted, and spreading; varying in height from three to eight inches; oblong, bluntish, deeply and bluntly indented at the edges, the indentations being alternate; the margin of the leaf smooth. When growing in sheltered, shady situations, the indentations often are so deep as almost to render the fronds pinnate. Their upper surface is smooth; in colour deep green, but slightly milky, or glaucous; the upper surface of the mid-rib is scaly. The under side of the fronds is entirely covered thickly with pointed, saw-edged, brown scales, lapping over one another. Before the fronds are expanded these scales are white and silvery. The *stalk* of each frond is about one-fifth of its length, dark-coloured, and covered with pointed, brown scales. If the scales are removed from the under surface of the fronds, the fronds will be found to have alternate lateral veins uniting at their points near the edge of the frond. The seed, or *sori*, are in oblong narrow masses attached, except the lowest mass, to the upper side of the principal branches of the veins. The covers (*indusium*) of the sori are one on each side of each mass, membranous, continuous, quite distinct from the scales.

In *England* it has been found near Lancaster; abundantly about Settle, in Yorkshire; on limestone rocks, in Lath-hill-dale, and in Dovedale, Derbyshire; on walls about the quarries at Ludlow, Shropshire; on an old wall near Cowley, in Oxfordshire; on a wall at Tecknells, near Painswick, in Gloucestershire; at

Martock, in Somerset; at Stapleton Quarries, near Bristol; at Cheddar, Malvern Abbey, and Bath; on the tower of Old Alresford Church, Hants; on walls on the east and north-east side of Winchester; at Topsham, and other places, in Devon; at Bury, in Suffolk; Heydon, in Norfolk; and Asheridge, in Hertfordshire. In *Wales*, in Denbighshire; on the walls of a ruin at Treborth, near Bangor. In *Ireland*, on the ruins of Saggard Church; on walls near Cork, and Kilkenny; on Cave-hill; and at Headford, in Galway. It seems incapable of bearing the colder climate of Scotland.

We have never attempted to cultivate this Fern, and must borrow from Mr. Charles Johnson the following remarks upon the subject:—

"It is not at all easy to cultivate this fern successfully: it is too impatient of confinement to live long in a greenhouse; and the cold frame, so useful for the protection of other half-hardy species, is almost certain death to this. The metropolitan cultivator is told that London air disagrees with it, and yet the only plant of it I possessed in my early career, lived in a nook of an old wall, in a back area in Hatton Garden, for several years, and may be there still, unless eradicated by repair; sun never reached it, and ancient mortar, which, constantly moist, had somewhat the consistence of paste, probably agreed with its constitution; a very necessary point to be studied in planting, as when left to its own selection, or in the wild state, it seems universally to prefer a calcareous habitat. Whether planted in the open fernery, or grown in pots, great care must be exercised as to drainage, and in the latter case especially to avoid wetting the fronds in watering."

The first writer who describes it as an English plant is Turner. In the first part of his "*Herbal*," published in 1551, he says, "it groweth mucho in Germanye, in old moiste walles, and in rockes; it groweth also in England about Bristowe (Bristol)." He adds, "I have heard no English name of this herbe, but it mayo well be called in English Ceteracke, or Miltwaste, or Finger Ferne, because it is no longer than a manne's finger, or Scale Ferne, because it is all full of scales on the

innersyde. It hath leaves lyke in figure unto *Scelopendra*, tho beste, which also called Centipes, is not unlike a great and rough palmer's worne."

There is no doubt that it is the *Asplenium* mentioned by Dioscorides and others of the old Greek writers, who attributed to it a marvellous influence over the spleen; so marvellous that Vitruvius tells us it destroyed that organ in the Cretan swine which fed upon it. This opinion of the "Miltwasting" power of this Fern lasted until the time of Elizabeth; for Gerarde, then writing, says, "There be Empericks or blinde practitioners of this age, who teach, that with this herbe not only the hardnesse and swelling of the Spleene, but all infirmities of the liver also may be effectually, and in very short time removed, insomuch that the sodden liver of a beast is restored to his former constitution againe, that is, made like unto a raw liver, if it bee boyled againe with this herbe."

"But this is to be reckoned among the old wives fables, and that also which Dioscorides telleth of, touching the gathering of Spleenewort in the night, and other most vaine things, which are found here and there scattered in old books: from which most of the later writers do not abstaine, who many times fill up their pages with lies and frivolous toies, and by so doing do not a little deceive young students."

Although neglected as a medicinal herb, it is still of some commercial value, being used as a bait for rock-fishing on the coast of Wales. The Rev. Hugh Davies says, it was becoming very scarce about Holyhead, owing to its consumption for that purpose.

This and some other Ferns are extremely retentive of life, of which we have this testimony from Dr. Daubeney, Professor of Agriculture, at Oxford.

"I have a specimen of *Hymenophyllum Tunbridgense* which has been preserved in a bottle, corked and sealed over, for more than three years, and which, even now, judging from its appearance, would seem to be living. For the first two years it looked as fresh as when first introduced; and although some of the fronds have now become black and shrunk, many are still fresh and expanded."

"On communicating this circumstance to a correspondent, I received the following statement, which may be worth recording as an example of tenacity of life among Ferns, in common with their allies the mosses;—A lady in Ireland found among her dried specimens one of the *Grammitis Ceterach*, which had been above two years in a portfolio in a very dry, warm room, and after planting it in a pot and covering it close, she had the satisfaction to see it come again to life. Afterwards a fresh young frond came up, which continued to flourish at the time this information was given, and all the old ones have now withered away."

Dr. Daubeney, it will be seen, calls the *Ceterach officinarum* by another name, *Grammitis Ceterach*. It is so called by some botanists, whilst by others it is known as *Scelopendrium Ceterach*, *Asplenium Ceterach*, *Notolepeum Ceterach*, and *Gymnopteris Ceterach*.

A MEETING of the BRITISH POMOLOGICAL SOCIETY was held at the Rooms, 20, Bedford Street, Covent Garden, on Monday, the 4th inst. Mr. GLENDINNING in the chair.

Specimens of two varieties of Grapes were received from Mr. Tillery, gardener to the Duke of Portland, at Welbeck. *Trebiana* is said by Mr. Tillery to be one of the best late White Grapes, keeping in good condition to the end of March. From the condition of these exhibited it was considered an excellent variety; the berries, though not quite plump, were well flavoured, and were considered by the Society very good for the season. This variety requires fire-heat in September and October, to get the fruit thoroughly coloured before the sun loses its power. *Black Tripoli* is one of those varieties planted at Welbeck by Speechley. It closely approximates to the Black Hamburgh, and is allowed to be a variety of it; but many of the members present were inclined to think it was identical with that variety. The general opinion, however, was that it was not identical, but a sub-variety.

Mr. Rivers, of Sawbridgeworth, had a very interesting collection of the new Belgian Pears which are now in season. The most remarkable of them were *Josephine de Malines* and *Louise Grégoire*, both of which we intend to illustrate and describe in our next number, and shall, therefore, suspend our remarks till then. *Beurré Langelier*, a large and well-flavoured Pear for this season. *Jean de Witte*, very rich, sugary, and excellent. *Doyenné Gris d'Hiver*, coarse fleshed, and inferior in flavour. *Easter Beurré*, grown under glass, was very inferior to specimens of the same variety grown against a wall or on standards; and it was elicited, during the conversation, that Pears generally do not acquire their true flavour under glass. *Inconneau Van Mons*, Mr. Rivers stated, was a variety he received, many years ago, from Van Mons, without a name, and being unknown to him, he gave it the above appellation. Though it was somewhat coarse-fleshed and gritty at the core, the juice was richly and full-flavoured, with an agreeable perfume. *Bezi Esperen*, a richly-flavoured, sugary, and juicy Pear, and said to be a very abundant bearer. *Beurré Sterkmanns* was coarse-fleshed, crisp, and hard, and not equal to its usual character.

Collections of Apples and Pears were received from Mr. Perry, of Algarkirk, near Spalding, and Mr. Houlston, of Wolverston Park, near Ipswich.

Dr. Davies, of Pershore, sent specimens of *Burdon's Reinette*, and a seedling Apple, which he requested should have its merits fully tested by the Society; but it was found to be inferior to many others already in cultivation, and, consequently, was not recommended.

Mr. Barratt, of Wakefield, sent a collection of Pears without names, and which were remarkable for their small size. They were, nevertheless, of excellent flavour, particularly *Easter Beurré*, *Beurré de Rance*, and *Knight's Monarch*.

Rev. Mr. Kitto, of Chadwell, near Grays, produced excellent specimens of *Cluster Golden Pippin* and *Scarlet Nonpareil*.

The following gentlemen were elected members:—

M. BEHRENS, of Lübeck.

I. STOVOLD, Esq., Hedham Hall, Midhurst.

E. A. BRANDT, Esq., Sulhampstead House, Turnham Green.

Mr. McLAUCHLAN, Ord Gardens, Letterkenny, Ireland.

Mr. JAMES CUTBUSH, Nurseryman, Highgate.

Mr. MARTIN HOPE SUTTON, Seedsman, Reading.

GREENHOUSE CULTURE OF FRANCISCEA HOPEANA.

PERHAPS some of the readers of THE COTTAGE GARDENER may think, because *Franciscea Hopeana* belongs to the class of stove plants, it requires a stove for its culture; but I have flowered it well without a stove.

The way that I treat my plants is this:—I keep them in the warmest end of the greenhouse all the summer, giving them water, when wanted, until October, and from that time, I treat them nearly as I do a Cactus, giving them scarcely any water at all until March. I then look them over, to see if the knife is wanted. Sometimes they will throw up a strong shoot or two from the bottom, which I shorten back a little, and pick off every leaf. I then surface-dress them with a mixture of loam and a little leaf-mould.

I have a plant, now fifteen inches high and nearly two feet through, in a nine-inch pot, and it has not been potted these four years, and has had nothing more than surface-dressing once a year. After picking off the leaves, I put them into a forcing pit, heated with stable-dung; give them plenty of water when they need it, and a slight syringing in the afternoon of a sunny day.

In about six weeks they are in one mass of bloom, from the surface of the soil to the top, and then I remove them to the greenhouse again. They will keep in bloom a long time, because there is a succession of flowers to open every morning. But they do not colour quite so brightly in a greenhouse as they do in a little heat.

Whoever has a greenhouse and a pit may manage to flower the *Franciscea Hopeana* as freely as those who have it in a stove. If you put your head into the pit or greenhouse, of a morning, where this plant is in bloom, you find the whole air is scented by its purple and lilac flowers. My plants do not get more than six weeks artificial heat throughout the year.—F. S., Wilts.

A BEAUTIFUL FLOWER-BED.

TALKING about flower-beds, I must tell you of one I dropped upon this last season, and my word, but it was worth calling a flower-bed, too. I have seen a jolly round number, in one place and the other—the Crystal Palace, Kew, and Hampton Court, too; but I must say, this I am about to describe was the most striking and effective of any I had hitherto seen.

Partly business and partly pleasure called me into Yorkshire, and the name of Ribston being so familiar, I made it my business to go a few miles out of my route on purpose to visit this place—which, by the kind permission of the proprietor, Jos. Dent, Esq., is thrown open to the public every Tuesday—and well was I repaid, too; for a more superior display of fruits (Pines especially), and grounds in higher order, it seldom has fallen to my lot to witness.

But this flower-bed, you will say. Oh, yes; I am coming to that, so will begin at the beginning. A quantity of larch stakes, three feet long and two-inches-and-a-half diameter, were driven, side by side, eighteen inches into the ground, leaving one-foot-and-a-half outside in an oval shape, eighteen feet long, eleven feet wide over the centre. The interior was filled up rather above the level with the soil. Around the stakes, outside, was planted, pretty thick, common Ivy, which, when I saw it in September last, formed a complete mass all round the bed, and kept the decaying stakes in position.

Now for the planting and arrangement of this raised bed, which you must understand was designed as a break to a heavy part of the ground, and as Mr. Abbott, the gardener, here remarked, “with telling effect.”

Immediately down the centre were six plants of scarlet *Salvias*; at each end of those was a plant of the variegated variety of *Salvia fulgens*; encircling those was the blue *Ageratum*; again, around those the *Frogmore Scarlet Geranium*; then a circle of yellow *Sultan Calceolaria*, which brought it to the edge, around which was planted the white *Ivy-leaved Geranium*. This was allowed to hang over quite down to the turf; and being full of white flowers, they beautifully blended with the dark green of the common Ivy and yellow *Calceolaria* above; then again with their immediate neighbours, and so on to the top of the *Salvias*, forming as rich and gorgeous a bank as I am sure none of your readers would ever regret imitating.

I have, also, several other valuable notes of the sayings and doings of this place, which I may at some future day trouble you with if you think them worthy a place in your instructive journal. [It will be no trouble.—Ed. C. G.] —A.—M. D.

HOT-WATER CIRCULATION.—WILD CINERARIA MARITIMA.

A CORRESPONDENT, “R. R.,” lately inquired whether he could obtain a boiler and furnace altogether; and another correspondent, “W. H. WARNER,” in No. 381, replies, “No; not at present.” Let me, however, say that I have had such an one for ten years past, and that it answers admirably, requires no brick setting, and has never yet wanted any repair. It is called the “Conical Copper Boiler.” I purchased it at Stephenson and Co.’s, 61, Gracechurch Street, costing about £6. It is placed so as to heat a hall and three living rooms in the day-time, and (by turning a stop-cock) a double greenhouse (when required) by night.

On the 15th ult., at 7 A.M., when the external thermometer was at 23°, the temperature of the three rooms were respectively 46°, 47°, 55°; hall, 45°; greenhouses, 43°; and a small inside forcing-frame with tank, 62°, all heated by this one boiler. It is economical as to fuel; and I have adjusted one of Huxley’s double-tube quicksilver regulators to a valve in the smoke-pipe, making the fire to regulate itself, and so that the heat may be increased or diminished at pleasure, it keeping constantly alight.

In reference to *Cineraria maritima*, alluded to in your number for January 22, page 299, I may remark, that last spring I saw it growing abundantly on the banks and shores of the Sardinian (Mediterranean) coast, where its peculiar mealy leaves presented a beautiful appearance, contrasted with the bright green and yellow of the *Euphorbias* and *Wall-flowers*.

I may also mention, that I am arranging and classifying a considerable collection of dried specimens of flowers and plants, collected during my residence abroad, and from Brazil, and can testify that I find your *Cottage Gardeners’ Dictionary* of the greatest assistance. I have felt pleasure in recommending it to others.—E. COPLAND, Bellefield, Chelmsford.

QUERIES AND ANSWERS.

GARDENING.

PLANTS FOR CLOTHING A WEST WALL.

“I should be much obliged by your mentioning the name and description of some quick-growing and flowering climbers to cover the side of a house with a western aspect; also, at what time they should be planted.

“Many of your subscribers might be glad of such information for the improvement of blank walls.—AN AMATEUR.”

[*Pyracantha* and *Pyrus japonica* are the best slow-growing wall plants. The *Glycine* or *Wistaria sinensis* is the strongest and best, and grows fast when once it is established. The *Coloneaster microphylla* is the neatest cover for a wall, and is as brilliant as the *Pyracantha* when in berry. Get some one

in Bath to tell you how much this *Cotoneaster* is used there. They manage it better in Bath than anywhere else we have ever heard of. The common *Passion-flower* would do with you for a south wall. The *Chinese* and *Japan Clematises*, *azurea*, *grandiflora*, and *Sieboldii*, ought to suit you. Why not try a *Cloth of Gold Rose*? but Roses, in general, are not good wall plants near doors, or windows, on account of the fly and honey-dew. The fastest-growing of all climbers is the *Virginian Creeper*, which is grown for the purple leaves in the autumn; and, as such, this creeper may be cut down to the surface of the ground every autumn when the leaves fall, and, when the roots are sufficiently strong, young shoots will grow to the top of a church before the leaves turn colour. When this creeper is used with Ivy—and it is best to grow with Ivy—it ought to be thus cut down every year; and if the shoots are well thinned as they grow and multiply, the size of the leaves will be double that of others grown on a plant which is pruned like a Vine. *Spiræa Lindleyana* has the handsomest leaf of all the plants for a wall, and the flowers come in large, white clusters, like a bunch of Grapes. It must be trained and pruned like a Peach-tree. *Pomegranates* and *Myrtles* ought to do with you, with a good covering in winter; and all the *Clematises* will cover a wall sooner than most other plants.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

WINDSOR POULTRY EXHIBITION. At Windsor, 4th, 5th, and 6th of June. Secs. Thos. Chamberlain, and Henry Thompson. Entries will close May 10th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

THE KENDAL POULTRY EXHIBITION.

THE one just concluded was the Fourth Annual Meeting of this Society, and it gives us great pleasure to be able to assure our readers it was *by far* the most successful of any of them; whether we consider the general arrangements, the number of visitors who attended, or the superiority of the poultry that competed. Kendal and its neighbourhood presents a multitude of natural objects highly attractive to visitors; and, doubtless, not a few who attended the Poultry Exhibition made a single journey serve two purposes, by extending their visit to the Lake of Windermere. With confidence we can assert, that none who did so would regret the time or trouble thus appropriated. The scenery in this locality is most impressively romantic, ruggedly wild, and beautiful; and, to any reflective mind, must instantly recall the words—

"These are Thy glorious works, Parent of good;"

and urge, also, to a variety of suppositions as to what extreme convulsion of Nature caused so abrupt a change. The mountains to the right of the lake are most especially worthy of notice, and are known as "Langdale Pikes," being decidedly the most prominent object in the whole scene. The Low Wood Hotel, at the foot of the Windermere, affords the best possible accommodation to parties desirous of prolonging their stay. If, on the other hand, a speedy return is contemplated, we would strongly advise visitors to engage a *special* train from Kendal to the Birthwaite Station, as, by this arrangement, they have only to state their *own* time for return, and under the able and prompt superintendence of Mr. Harris, the Kendal station-master, no hurry or disappointment will ensue. For this purpose, first-class carriages are appointed, and the expense is very trifling.

Apologising for this digression, by simply stating, our desire is to give as *useful* and *extended* information as possible, we will, without farther comment, re-conduct our readers to the Poultry Exhibition. The three former Shows have been held in as many different buildings that happened to be vacant at the time they were required. The one just past took place in a very suitable structure (the New Market-house), but scarcely yet out of the hands of the plasterers. It is lighted both from the roof and side-walls; therefore, it rarely has happened *all* pens competed so fairly as

on this occasion—a feature never to be neglected anywhere, as it at once prevents "the disappointed" ascribing their defeat to "the utter impossibility of *their* birds having been looked at."

We cannot avoid here giving utterance to the general commendation lavished on the committee by *all* who visited the Show, and must say these gentlemen very richly deserved it. All of them were parties both "ready and willing" to instantly aid, by their own *personal* efforts, in effectually carrying out the preconceived regulations; nothing, therefore, remained partially completed, or altogether undone. It is, indeed, very rarely we can record the like issue, where subordinates "rule the roost," or committee-men supinely imagine their labours fully completed when the fowls are duly penned for exhibition. From the causes just assigned, the return of the poultry after the meeting was equally punctual, and perfectly carried out.

The *Spanish* classes were well represented.

In the *Dorkings*, not a few very excellent pens competed; and among the adult ("Greys") the first-prize pen contained two hens especially worthy of the premium. We know that fifty guineas were offered in the room for them, and at once refused.

The *Buff Cochins* were, many of them, very meritorious, and fast returning to the original proportions we were accustomed to meet with at the commencement of their career. The attention of amateurs, very properly, now resting *strongly* on this all-important item to secure success. Of either the Partridge-feathered, or Blacks or Whites, we can say but little.

In the *Game* classes, the quality of the birds competing has never been excelled. We can confidently state, scarcely a single indifferent bird was exhibited, and the matching of the different pens was an evident proof their owners had not neglected one of the greatest essentials to success, and one to which, in most places, but little respect is given, until the repeated loss of valuable premiums enforces greater circumspection.

Somewhat remarkably, all the *Hamburgh* classes ranked weakly, and many were shown in sadly mutilated condition, from too rapidly-repeated appearances "on the boards." There were several very superior specimens of *Polands*, but the numbers were limited. The *Bantams*, on the contrary, mustered both strongly and good. Some very unique and interesting *Calcutta Jungle Fowls* figured in the class of extra varieties, and created general attention. The classes for *Single Cocks* were perfection; and not a few successful ones sold at high figures. The *Geese* and *Rouen Ducks* were very superior; but the *Aylesburys*, though good, sadly lacked "condition." The *Pigeons* were not so good as anticipated; and, for "condition," did not tend much to rise the "fancy" in public estimation so far as Kendal is concerned. Another season, no doubt, there will be improvement in these classes also.

Great numbers were sold of the leading varieties of poultry; the admission receipts far exceeded those of any previous meeting; and the prizes were very satisfactorily awarded by Mr. Edward Hewitt, of Birmingham.

SPANISH.—5. First, Mr Joseph Tate, Preston. 10. Second, Mr G. W. Hartley, Stricklandgate, Kendal. 7. Third, Mr G. A. Gelderd, Aikrigg End, Kendal. Commended.—2. Mr George Robinson, Kendal. (A very good class.) *Chickens of 1855.*—15. First, Mr G. A. Gelderd, Aikrigg End, Kendal. 12. Second, Mr James Dixon, Bradford. 11. Third, Mr Joseph Tate, Preston. Highly Commended.—13. Mr George Robinson, Kendal.

DORKING (Coloured).—18. First, Mr G. A. Gelderd, Aikrigg End, Kendal. 17. Second, Mr Edward Owen, Kendal. 19. Third, Mr F. C. Ellison, Sizergli Castle, Kendal. *Chickens of 1855.*—23. First, Mr G. A. Gelderd, Aikrigg End, Kendal. 24. Second, Mr D. Harrison, Singleton Park, Kendal. 25. Third, Mr Geo. Wilkins, Mansergh, Kirkby Lonsdale.

DORKING (White).—26. Second, Mr John Robinson, Vale House, Garstang. (First withheld.) *Chickens of 1855.*—27 and 28. First and Second, Mr John Robinson, Vale House, Garstang.

COCHIN-CHINA (Cinnamon and Buff).—34. First, Mr G. A. Gelderd, Aikrigg End, Kendal. 29. Second, Mr Thos. Barnett, Hutton, Preston. Commended.—31. Mr Robert Serginson, Sutton, Chester. (A superior class.) *Chickens of 1855.*—37. First and Second, Mr Thomas Burnett, Hutton, Preston.

COCHIN-CHINA (Brown and Partridge-feathered).—44. First, Mr William Wanklyn, jun., Bury. *Chickens of 1855.*—45. Second, Mr William Wanklyn, jun., Bury. (First withheld.)

COCHIN-CHINA (White or Black).—46. First, Mr Richard Tcbay,

Preston. 48. Second, Mr Wm. Wanklyn, jun., Bury. *Chickens of 1855.*—49. First, Mr Wm. M. Barnes, Levens, Kendal. 51. Second, Mr Richard Tebay, Preston.

GAME FOWLS (White and Piles).—56. First, Mr Frank Atkinson, Lord's Plain, Kendal. 52. Second, Mr Joseph Tate, Preston. Commended.—60. Mr John Thackeray, Hawkshead. *Chickens of 1855.*—64. First, Mr Francis Atkinson, Lord's Plain, Kendal. 65. Second, Mr Wm. Wilkinson, Lyth, Kendal. Commended.—66. Shepherd Wales, Kendal.

GAME FOWLS (Black-breasted and other Reds).—67. First, Mr Wm. Talbot, jun., Lane House, Burton. 74. Second, Mr Robert Pickthall, Kendal. Highly Commended.—75. Mr Robert Pickthall, Kendal. 76. Mr Francis Atkinson, Lord's Plain, Kendal. Commended.—69. Mr George C. Peters, Birmingham. 70. Mr Wm. Brockbank, Ulverston. 77. Mr Henry Simpson, Hynning, Milnthorpe. (A highly meritorious class.) *Chickens of 1855.*—88. Second, Mr R. C. Barrow, Bradleyfield, Kendal. 83. Second, Mr John Faweett, Hutton, Kendal. Highly Commended.—85. Mr Robert Pickthall, Kendal. Commended.—90. Mr Daniel Harrison, Kendal.

GAME FOWLS (Best of any other variety).—99. First, Mr Wm. Wilkinson, Lyth, Kendal. 95. Second, Mr H. Raithmell, Hutton, Kendal. Highly Commended.—98. Mr Wm. Wilkinson, Lyth, Kendal. Commended.—94. Mr Geo. C. Peters, Birmingham. *Chickens of 1855.*—101. First, Mr H. Raithmell, Hutton, Kendal. 103. Second, Mr Robert Pickthall, Kendal. Highly Commended.—102. Mr Robert Pickthall, Kendal.

GOLDEN-PENCILLED HAMBURGH.—105. First, Mr James Dixon, Bradford. 106. Second, Mr Edward Pease, jun., Southend, Darlington. *Chickens of 1855.*—111. First, Mr Daniel Harrison, Kendal. 110. Second, Mr Joseph Abbott, Kirkland, Kendal. Commended.—109. Mr Robert Sergeunson, Sutton, Chester.

GOLDEN-SPANGLED HAMBURGH.—113. First, Mr James Dixon, Bradford. *Chickens of 1855.*—117. First, Mr James Dixon, Bradford. 121. Second, Mr John Robinson, Vale House, Garstang. Commended.—118. Mr James Rookes, High Barn, Kendal.

SILVER-PENCILLED HAMBURGH.—122. Second, Mr James Dixon, Bradford. (First withheld.) *Chickens of 1855.*—131. First, Mrs H. Sharp, Mill Lane, Bradford. 129. Second, Mr John Robinson, Vale House, Garstang.

SILVER-SPANGLED HAMBURGH.—136. First, Mr Thomas Burnett, Hutton, Preston. 132. Second, Mr T. W. Jones, Wellington, Salop. (An indifferent class.) *Chickens of 1855.*—139. First, Mr James Dixon, Bradford. 140. Second, Mr Thomas Burnett, Hutton, Preston.

POLAND FOWL (Black, with White Crests).—No entry. *Chickens of 1855.*—143. Second, Mrs H. Sharp, Bradford. (First withheld.)

POLAND FOWL (Golden).—144. First, Mr James Dixon, Bradford. *Chickens of 1855.*—145. First, Mr James Dixon, Bradford.

POLAND FOWL (Silver).—146. First, Mr Edward W. Hazlewood, Bridgnorth, Shropshire. *Chickens of 1855.*—147. First, Mr James Dixon, Bradford. 148. Second, Mr Parkins Jones, Fulham.

BANTAMS (Any variety).—155, 156, and 157. First, Second, and Third, Mr G. C. Peters. (Silver-laced.)

FOR ANY OTHER BREED.—161. Second, Mr D. Harrison, Kendal. (Brahma Pootra.) *Chickens of 1855.*—163. First, Mr Richard Tebay, Preston. (Brahma Pootras.) 166. Second, Mr Parkins Jones, Fulham. (Calcutta Jungle Fowls.)

PRIZES FOR SINGLE COCKS OF ANY AGE.—*Spanish.*—168. Prize, Mr Thomas Baron, Kendal. Highly Commended.—170. Mr G. A. Gelderd, Aikrigg End, Kendal. *Dorking.*—173. Prize, Mr G. A. Gelderd, Aikrigg End, Kendal. Highly Commended.—171. Mr R. B. Parkinson, Kendal. 176. Mr Geo. Wilkins, Mansergh, Kirkby Lonsdale. *Cochin-China.*—178. Prize, Mr Thomas Burnett, Hutton, Preston. Highly Commended.—179. Mr William Wanklyn, jun., Bury. Commended.—180. Mr Thomas Hineks, Penfields, Wolverhampton. *Game.*—189. Prize, Mr William Brockbank, Ulverston. Highly Commended.—193. Mr Robert Pickthall, Kendal. 194. Mr F. Atkinson, Lord's Plain, Kendal. 199. Mr John Greenhow, Anchorites' Well, Kendal. Commended.—186. Mr C. Gardner, Kendal. 188. Mr Robert Bateman, Kendal. 191. Mr William Ellison, jun., Low Sizergh, Kendal.

GESE.—200. First, Mr Wm. Talbot, jun., Lane House, Burton. 203. Second, Mr Daniel Harrison, Kendal. (A very good class.)

DUCKS.—*AYLESBURY.*—210. First, Mr William Whitwell, Kendal. 204. Second, Mr T. W. Holme, Kendal. *ROUEN.*—214. First, Mr Daniel Harrison, Kendal. 213. Second, Mr William Wanklyn, jun., Bury.

TURKEYS.—216. First, Mr E. Pease, jun., Southend, Darlington. 217. Second, Mr F. C. Ellison, Sizergh Castle, Kendal.

PIGEONS.—*Carriers.*—219. Prize, Mr Edward Owen, Kendal. *Almond Tumblers.*—220. Prize, Mr Isaac Monkhouse, Kendal. *Jacobins.*—223. Prize, Mr Isaac Monkhouse, Kendal. *Fantails.*—225. Prize, Mr Edward Owen, Kendal. *Tumblers.*—228. Prize, Mr John Greenwood, Kendal. *Any other breed.*—230. Prize, Mr John Greenwood, Kendal.

SOUTH DURHAM AND NORTH YORKSHIRE POULTRY SHOW.

THE Judges for Poultry were the Rev. R. Pulleine, Kirby Wiske, and Edwin Ashe, Esq., of Mutton; and for Pigeons, Mr J. W. Botcherby, of Darlington.

SPANISH.—Silver Cup, J. Shorthose, Shieldfield Green, Newcastle. Second, — Lightfoot. Highly Commended.—G. L. Fox, Bramham

Park, Tadeaster. C. W. Newsome, Hickmondwicke. *Chickens.*—First, — Lightfoot. Second, J. Shorthose. C. J. Dixon, Bradford.

DORKINGS (Coloured).—First, Miss Wetherell, Kirkbridge. Second, J. Shorthose. Highly Commended.—H. J. Spearman, Newton Hall, Durham. J. Robinson, Vale House, Garstang. (The whole class commended.) *Chickens.*—Silver Cup, G. Baillie, Millerstain, Kelso. Second, Rev. G. Hustler, Appleton, Tadeaster. Highly Commended.—Miss Wetherell. Mrs Pease, Feethams, Darlington. J. Robinson. Rev. G. Hustler. H. J. Spearman. W. Jackson, Scruton, Bedale. W. Gray, Darlington. Master E. R. Whitwell, West Lodge, Darlington. Rev. J. F. Newton, Kirby. II. Bolekow, Marton Hall, Middlesborough.

DORKINGS (White).—First, Mrs Pease. Second, J. Robinson. *Chickens.*—First, J. Robinson. Second, E. Pease, jun. Highly Commended.—Mrs Pease.

COCHINS (Cinnamon and Buff).—Silver Cup, Rev. G. Hustler. Second, W. Newsome. Highly Commended.—H. Marshall. Commended.—T. H. Barker, Hovingham. *Chickens.*—First, G. Robinson. Second, H. Marshall. Commended.—E. D. Swarbrick, Thirsk.

COCHINS (Brown and Partridge).—First, W. Wanklyn, jun., Green Bank, Bury. (Second withheld.) *Chickens.*—First, G. Dixon. Second, W. Wanklyn.

COCHINS (White).—First, W. Dawson, Hopton Mirfield. (Second withheld.) *Chickens.*—First, Mrs S. Sharp, Mill Lane, Bradford. Second, W. Wanklyn.

GAME.—First, G. Flower, Northallerton, and W. Gill, Stokesley. Commended.—E. Brown, Harwood. A. D. Lacy, Hall House, Kingston. J. Watson, Chainlane, Knaresbro'

HAMBURGHS (Golden - pencilled).—First, E. Featherstonhaugh, the Hermitage, Chester-le-Street. Second, Mrs H. Sharp, Mill Lane, Bradford. *Chickens.*—First, J. Dixon. Second, E. Featherstonhaugh. Commended.—Barnard, Darlington.

HAMBURGHS (Silver-pencilled).—First, H. Bolekow. Second, E. Featherstonhaugh. Commended.—G. Dixon. *Chickens.*—First, Featherstonhaugh. Second, G. Dixon. Highly Commended.—M. Elliott, Worsall Hall, Yarm. Commended.—H. Bolekow.

HAMBURGHS (Golden-spangled).—First, W. Miller, Ainderby Steeple. Second, G. Couyers, Leeds. *Chickens.*—First, Rev. J. E. Kaw, Ainderby Steeple. Second, G. Robinson. Commended.—M. Leeming, Blackwood House, Halifax.

HAMBURGHS (Silver-spangled).—First, H. Beldon, Eccleshill Moor, Bradford. Second, G. Dixon. *Chickens.*—First, Mr. Leeming. Second, H. Beldon. Highly Commended.—Mrs H. Sharp. Commended.—Calvert, Darlington. T. Shaw, jun., Darlington.

POLISH (Black, with White Crests).—First, J. Conyers. Second, Mrs Sharp.

POLISH (Golden).—First and Second, J. Conyers.

POLISH (Silver).—First, J. Watson, Cockerton. Second, H. Bolekow.

MALAY.—No first prize. Second, H. Bolekow.

BANTAMS (Any variety).—First, J. Dixon. Second, G. Baillie. Extra Prizes.—Mole, Aycliffe. (White.) R. Robson, Darlington. (Black.) H. J. Spearman. (Game.)

CROSS BREEDS.—First, W. Stockdale, Middleton-on-Row. (Barn-door Fowl.) Second, J. Shorthose. (Andalusian.)

PIGEONS.—First (six pairs of sorts), W. Cannan, Bradford. Second (three pairs of sorts), W. Dixon.

GESE.—First, Mrs Wooler, Ingleby, Berwick. (Two pens.) Second, H. Ambler. Highly Commended.—H. Ambler. J. F. Newton. (The whole class commended.)

DUCKS.—(AYLESBURY).—First, W. Dixon. Second, Mrs Fidler, Highly Commended.—H. Ambler. E. Pease. (Two pens.) Mrs Robb, Thorpefield, Thirsk. *ROUEN.*—First, G. L. Fox. Second, Miss Wetherell. Highly Commended.—W. Wanklyn. E. Featherstonhaugh. *ANY VARIETY.*—First, H. Beldon. (East India.) Second, E. Featherstonhaugh.

TURKEYS.—First, E. Pease. Second, E. Brown, Harwood. Highly Commended.—J. D. Hand, Grantham. R. Thompson. Mrs Hett, Headham.

GUINEA FOWL.—Mrs Hooper, Marton.

EXTRA STOCK.—W. Dawson. (Serai Taook.) J. Pease. (Egyptian Geese.) J. Pease. (Widgeon, Pintails, and Teal.)

GOLDEN PHEASANTS *versus* GOLDEN-SPANGLED HAMBURGHS.

'Then by Jove, said Francis the First, hitching up his breeches, we'll go to war with 'em!'—*Sentimental Journey.*

TRULY, 'tis an odd motto of yours, Mr. Shandy—and what can it have to do with Golden Pheasants! I will tell you, my dear Madam;—There are no secrets between you and me; but, truly, had there been a score; why, heaven help me, if I could have kept one of them! 'Twas simply thus; Francis the First being very low in pocket, and owing Sweden a large sum of money; bethought him, that he would pay her, not with gold, but with a compliment. He proposed, therefore, that Sweden should stand godmother,

(for she was then a republic,) to his son.—Granted, on the part of Sweden, provided, that she should exercise the usual privilege of naming the child; which she insisted should be called, Shadrach Meshach Abednego!

Impossible! shouted Francis the First in a rage! go, go, pay her, pay her Messieur le Premier, in money!—"Sire, your Majesty has not 50,000 golden crowns in your treasury." Then by Jove, says Francis the First, pulling up his breeches, we'll go to war with 'em!

Now, I assure you, my dear readers, that I do not state the above, as a mere skit,—a satire, on the often trifling and foolish causes of war. 'Tis but to show you, what sad work may come of it, when we indulge the conceit, of nick-naming the creatures of the earth,—whether they may be our children, or our chickens.

We'll go to war with 'em, said Francis the First, pulling &c.;—we'll go to war with 'em, says Tristram Shandy, pulling down his wristbands! And I declare to you, my gentle readers, despite of all the tittering that may be going on among you,—I declare to you, in all my wonted gravity and seriousness, that if, instead of the Golden Pheasants having been nicknamed Spangled Hamburghs, they had called them *Spangled Shadrachs*,—*Spangled Meshachs*,—or *Spangled Abednegos*, I would not have said one word! I would have passed it over, as a piece of merry sport,—as a random satire, on the new and fine names given to some fowls, "in the any other variety" class: or even, as a delicate compliment to Sweden; our ally.

Surely no fowls have been so "mightily abused" as have the Golden Pheasants! 'Twas not enough to change their very nature—to mongrelize them—to cross them with the Game cock to give them full, flowing black tails; aye, and mark ye, *iridescent black tails*; and hackles, and long saddle feathers, instead of spangled ones:—but, as if to carry extermination to its utmost limit, or to annihilate identity, some yet more conceited innovators, changed their very name! and, of all towns in the wide world, *Hamburgh*—I say, *Hamburgh*, was fixed upon. "Oh, for an ounce of civet, good apothecary, to sweeten my imagination!"—they were called Hamburghs, inasmuch as they did not come from *Hamburgh*.

It is difficult, even for a person of my own quiet, demure, and smooth temper of mind; whose very pen is dipped in the milk of human kindness, to preserve, even a moderate degree of composure, while I denounce the flat ignorance, but lofty conceit of those, who "filched from them their good name" of Golden Pheasants. A name they had always borne in Yorkshire, their especial habitat. A name, most happy—most expressive—aye, and a name in exact accordance with scientific nomenclature and usage! yet, change it forsooth!

But patience, my dear readers, I beseech you! Call not the perpetrators fools, dolts and donkies—neither noodles, ninecompoops, nor ninnyhammers—at least not yet. But, you are excited—let us cool ourselves a hit, in a little philosophical digression.

Now, of all sensations, titillations and excitement, none are equal to *sneezing*!—'tis the very quintessence of pleasure—the rit, tit, tit, of sensation. Yet, withal, 'tis a villanous modifier of manly beauty.—But with you my fair, and therefore to me, dear, readers, 'tis not to be thought of;—away with the anti-angelic idea!—but smile—ever smile my fair friends, and continue to your own dear Tristram, the very poetry of his existence; which, you too well know, hangs as it were, by a silken thread, affixed to your own eye-lashes, and sweet corners of your mouths;—a momentary cloud there—and Tristram would droop:—but, a sneeze! Venus defend us!—

But, all this, is a digression in a digression;—let us to the point. 'Twas a tenet in Greek philosophy, that, there was much hidden danger in sneezing;—hence, whenever a man was heard, or what is still worse to the beholder, seen, to sneeze, his friend immediately exclaimed "Zethe," "Zethe"—that is, "God bless you"—"I wish you well through this bout of sneezing!"—Now, 'tis a tenet of the Shandyan philosophy, that there is just as much danger in laughing, as in sneezing;—and, as I am now going to plunge all of you, my dear readers, into such a shaking, rousing, fit of it, as you never endured in your whole lives, I make it a point of conscience, to forwarn you. ('Tis

anent the imposition (truly an imposition) of the name of Spangled Hamburghs, on the Golden Pheasants!) But, as I'm certain that you cannot, at present, bear the violence of the concussion, and succession of such a fit of laughter—and, as I have already said so many good things in this chapter, I must give you one week of preparation for the onset;—I conclude, then, by heartily exclaiming "Zethe, Zethe"—"may you all, good folks, get well over it, next week."—TRISTRAM SHANDY, *Hull*.

PIGEONS AT EXHIBITIONS.

IN your last number, "TRISTRAM SHANDY" gives as his opinion that Pigeons should be made the chief feature at a Poultry Show, and by the term Pigeons he means, I suppose, only *Pouters*, *Carriers*, and *Almond Tumblers*. Now, I have always been under the impression that Shows were established for the encouragement of the breeding of useful poultry, and I do think that the bumptious amateur of *Cochins*, &c., is much better employed than he who applies his skill to dwarfing the beak of a Tumbler, elongating the toe-nail of a Pouter, or enlarging the fleshy protuberance on the face of a Carrier. The latter is worthy only of being classed with the breeder of the lop-eared rabbit, or the toy spaniel, since each endeavours to produce an animal which may, perhaps, be admired, but is, certainly, utterly useless. I grant, that in an exhibition of fancy Pigeons, the varieties which are most valuable, and difficult to procure, should take precedence of the common sorts; but if "TRISTRAM" sends his Pigeons to a Poultry Show, he should, I think, be content with the inferior position assigned to him, and not claim for them the preference over poultry, which are really useful, quite as ornamental, and (although he seems to doubt it) much more valuable, as the lists of sales at Liverpool and Birmingham will testify.

In conclusion, I must say that I regret extremely this controversy has arisen; for if the decisions of the Judges are to be called in question, and found fault with by every unsuccessful exhibitor who fancies his own geese to be swans, there will soon be no Poultry Shows for want of Judges. Let those Pigeon-fanciers, therefore, who cannot bear to see their birds beaten, refrain from sending them to the exhibitions. The Poultry Shows will get on quite as well without them, and they themselves will have no cause for complaint.—AN ADMIRER OF USEFUL POULTRY.

PRODUCTIVENESS OF A DORKING HEN.

AS I am prepared to prove the truth of the following statement of the performances of a hen, nearly pure Dorking, in the past year, I send it to you for insertion, thinking it may interest some of your numerous poultry readers.

On the 12th of January she hatched thirteen chickens; she reared twelve, and left them at eight weeks old. Laid twenty-three eggs; sat on seventeen; hatched them all, and reared them. Laid again nineteen eggs; sat on and hatched thirteen, and reared them all.—JOHN BAILY.

HAMBURGH-POLANDS.

MY attention has only just been called to Mr. Williams's question, or I would have answered it earlier. Alluding to some remarks I made (under signature "B.") he says, "He speaks of *Hamburgh-Polands*. Does he know of any birds coming from Poland?" Now, if my words implied as much, it was not my intention they should do so; the universally-accepted name on this side of the water for crested fowls being *Poland* or *Polish*. I called them *Hamburgh-Polands* from the locality they come from, and to distinguish them from the very superior birds we now possess, which are hardier, less subject to disease, bear confinement better than many sorts, and being non-sitters, are prolific layers. A great desideratum for their well-doing is, that birds with strong, well-formed crests should be selected, and no prize or commendation should ever be awarded to others. As to the vexed question of a name for them, which Mr. Williams is

so great an advocate for changing, I can only say that twenty-five years ago, as our books will prove, they were called Polands; and if only for convenience, I do not think it is desirable to alter it. To his rules, as a basis for judging, I wish every success, as exhibitors would know what was required, and, at the same time, they would occasionally prevent conflicting awards.—S. C. BAKER, *Half-Moon Passage, Gracechurch Street.*

THE SOLUTION OF COPAIBA IN CATARRH AND ROUP.

I MUST not allow Mr. Tegetmeier, to weaken his own positions by his suggestion of an easy mode of giving the balsam of Copaiba to roup fowls; that is, by the Copaiba capsules. (All may not know, that these capsules, are little gum-bags, of a conical form, the size of a filbert; and filled with *balsam* of Copaiba.)

Mr. Tegetmeier announced, in his previous writings, the efficacy of certain local applications, in some stages of roup; I was, therefore, the more wishful to give the *solution* of Copaiba, by means of a quill; for, when so given, it becomes, to a certain extent, a local application also; inasmuch as, the fowl usually makes a coughing, or sneezing effort, after it is given. The caustic potash, spirit, &c., used in forming the solution, seems to me, to increase its efficacy, as a local agent.

I prefer administering it by means of a quill, for two, or three reasons. First, I then know that Copaiba is *really* given. Secondly, I believe that the *solution*, acts very beneficially as a local application. Thirdly, when you give the capsules, in three times out of four, you do not give Copaiba at all! Adulteration is rife among the Copaiba capsules. And I am assured, by honest druggists, that, in three cases out of four, "wood oil" is substituted for Copaiba! The druggists know which boxes contain the real Copaiba, and which "wood oil,"—so they say; but that, *in the trade*, the spurious imitation abounds. For this scandalous reason, the Copaiba capsules have fallen into disuse among physicians.

I think that Frank's solution of Copaiba, is as good as any. It is readily given by a quill; I first shape the quill like a blunt pen, or rather scoop, for the facility of pouring into it the solution. I then cut off the plume, or top of the quill, leaving a circular aperture. On this end, I place the forefinger; then pour in the solution at the scoop end; and, having well inserted it in the bird's mouth *above* the tongue, I raise the forefinger from the other end; when the contents of the quill, quickly pass into the fowl's throat.

As all are not equally learned, I shall be pardoned for stating, that there is a difference between *balsam* of Copaiba, and the *solution* of Copaiba; the latter, being, in some respects weaker, and is prepared from the former. But I consider, that the ingredients used in preparing the solution, are, themselves of efficacy; especially from their local action.

Since I had last the pleasure of communicating with Mr. Tegetmeier, I have continued to use the solution; and, in two cases of catarrhal, roup fowls, its excellent effects were surprisingly rapid. But, let me warn amateurs, not to expect that catarrh, or roup in fowls, is now to be cured "in one minute," as some peripatetic "doctors" assure us respecting the toothache. These sort of diseases, seem often to be as depressing and lingering in fowls, as influenza or inflammatory sore throat is, with ourselves.

The treatment, which I myself think most speedy and beneficial is, first, to give a dose of powdered Jalap, say, a bolus of it the size of a filbert, or nut. I am, of all medicines, partial to Jalap for fowls: whenever they seem "out of sorts," its efficacy is really surprising. The dose may be repeated twice or thrice every third day. Give a large quillful of the solution of Copaiba, every night; that is, a tea-spoonful: in bad cases, I should give it night and morning, especially in large fowls. When the eyelids are swollen, and gummed up, I besmear them with an ointment, made from half-an-ounce of spermaceti, and five drops of Goulard's extract. If this cannot easily be got, or, is not at hand, a little softened tallow, from a candle, besmeared on the eyelids, greatly prevents their being gummed up. Such is my *medical* treatment. Everybody knows, that the birds should be kept warm and dry. I cannot protest too strongly against all effluvia, and want of attention to cleanliness, and ventilation.

I am quite convinced, that effluvia, and want of ventilation and cleanliness, are by far, more frequent causes, of what are usually termed colds, and roup attacks, than are cold and rain themselves. Mr. Tegetmeier informs me, that he has allowed some white Polish fowls to roost, all this bad season, under open sheds; by no means water-tight, and in a clay-soil field, (I know not whether for experiment,) without any ill effects; and I have known other similar cases. I hope that these words may be sufficient for the *unwise*.—R. HORNER.

P.S.—It may be worth while stating that I gave a box of the Copaiba capsules, *so called*, about three years ago, to fowls; but without any very encouraging results. I must, in justice add, that the capsules were not then given in sufficient quantity, nor, perhaps, with sufficient regularity. The essential oils of Copaiba and of Cubebs, mixed in equal quantities, were then tried. Their efficacy was marked; but their intolerable smell caused me to desist. Ten drops were given twice a day: still I think, that if given by a quill, they would be manageable. Unfortunately, they too, are much adulterated; so that, after all, the *solution* seems the most safe and suitable preparation.—R. H.

PRIZES FOR PIGEONS.

THE repeated dissatisfaction evinced by exhibitors will, I trust, in future induce committees to specify certain varieties for competition for a cup prize, which will necessarily make it a much easier task for the Judge to arrive at a proper conclusion, and thus prevent a repetition of such a gross blunder as that displayed at the late Anerley Show.

Should there be any objection on the part of committees to such a course, I would suggest that cup prizes be offered to the exhibitor who can take the greatest number of prizes out of any specified number of pens.—JOHN PERCIVAL, *Queen's Row, Watworth.*

LONDON MARKETS.—FEBRUARY 11TH.

COVENT GARDEN.

Last week's prices have been fully maintained, and a steady course of business generally. We have had somewhat heavier supplies from the Continent, and large quantities of *Broccoli* up from Cornwall, the price for the latter article having, in consequence, receded a little, varying from 1s. to 3s. per dozen heads. *Rhubarb*, *Sea-kale*, and other forced *Vegetables*, quite equal to the demand. *Pears* good, consisting of *Ne Plus Meuris*, *Nelis d'Hiver*, *Passe Colmar*, and *Old Colmar*. Inferior sorts not in request. A large arrival of *Shaddocks* and *Pommeloos*, from Nassau, have passed auction this week. The latter article in excellent order. *Potato* trade heavy, at former quotations.

FRUIT.

Apples, kitchen, per bushel.....	3s. to 6s.
" dessert	6s. ,, 10s.
Pears	8s. ,, 12s.
Peaches, per doz.....	—
Neectarines, per doz.....	—
Plums, per sieve	—
Pine-apples, per lb....	6s. ,, 8s.
Grapes, per lb.....	2s. ,, 8s.
Foreign Melons, each	2s. ,, 4s.
Figs.....	—
Gooseberries, per qt.	—
Currants	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. ,, 10s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel.....	20s. ,, 22s.
Nuts, Brazil, per bushel.....	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts per bushel	12s. ,, 20s.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	4s. to 6s.
Broccoli per bdl	1s. ,, 2s.
Savoy	1s. ,, 2s.
Greens, per dozen bunches	4s. ,, 6s.
Spinach, per sieve....	— ,, 4s.
Beans	—
French Beans, per hundred	3s. ,, 4s.
Scarlet Runners	—

Peas, per bushel	—
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz.....	6d. ,, 9d.
Beet, per doz.	1s. ,, 1s. 6d.
Potatoes, per ewt. ..	3s. ,, 6s.
Turnips, per bunch..	— ,, 3d.
Onions, young, per bunch	1d. ,, 2d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Shallots, per lb.	4d. ,, 6d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Lettuce, Cos, per score	6d. ,, 1s. 6d.
" Cabbage....	6d. ,, 8d.
Endive, per score ..	1s. 6d. ,, 2s.
Celery, per bunch..	9d. ,, 1s. 6d.
Radishes, Turnip, per dozen bunches	1s. ,, 1s. 6d.
Water Cresses, per dozen bunches	6d. ,, 9d.
Small Salad, per punnet.....	2d. to 3d.
Artichokes, each	3d. ,, 6d.
Asparagus, per bundle	5s. ,, 8s.
Sea-kale, per punnet	2s. ,, 3s.
Rhubarb, per bundle	1s. 6d.
Cucumbers, each	1s. ,, 3s.
Vegetable Marrow, per dozen	—
Tomatoes, per punnet	—
Mushrooms, per pot	1s. 6d. to 2s.

HERBS.

Basil, per bunch	4d. ,, 6d.
Marjoram, per bunch	4d. ,, 6d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch ..	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch ..	2d. ,, 3d.
Mint, per bunch	2d. ,, 4d.

GRAIN AND SEED.

FRIDAY, FEB. 8.—The Corn trade, day by day, undergoes little variation. The disposition to buy is as dull as ever, and neither for Wheat, Barley, Oats, nor Flour, is there more than a demand of absolute necessity. Seeds and everything else seem to participate in the general depression.

WHEAT, Essex and Kent red, old.....	—s —s —s, fine —s —s	0s
Ditto ditto new.....	62s 67s —s, fine 69s —s —s	
Ditto ditto white old.....	—s —s —s, fine —s —s —s	
Ditto ditto new.....	66s 75s —s, fine 76s —s —s	
Foreign, red.....	70s 78s —s, fine 79s 87s —s	
Ditto white.....	75s 88s —s, fine 88s 92s —s	
RYE.....	50s 52s, fine —s —s	
BARLEY, grinding.....	28s 30s, fine 31s 32s	
Distilling.....	32s 34s, fine 34s 36s	
Maltng.....	36s 38s, fine 38s 40s	
MALT.....	70s 74s, fine 76s 78s	
PEAS, hog, new.....	37s 39s, fine —s —s	
Maple.....	40s 42s, fine —s —s	
White.....	41s 43s, fine 46s 48s	
Blue.....	43s 50s, fine 50s 52s	
BEANS, pigeon.....	50s 52s —s, new 49s 50s —s	
Ticks for splitting.....	38s 40s —s, new 37s 38s —s	
Harrow.....	47s 50s —s, new 42s 45s —s	
OATS, English feed.....	20s 21s, fine 22s 23s	
Poland or brew.....	24s 26s, fine 26s 27s	
Scotch potato.....	29s 30s, fine 30s 31s	
Ditto feed.....	26s 27s, fine 27s 28s	
Irish potato.....	25s 26s, fine 26s 27s	
Ditto feed white.....	21s 22s, fine 22s 23s	
Ditto black.....	22s 23s, fine 23s 24s	
Foreign feed free.....	21s 22s, fine 22s 23s	
Poland or brew.....	24s 25s, fine 25s 26s	
FLOUR, Town made, per sack.....	61s 67s 70*s, Seconds 60s 63s	
Essex and Suffolk.....	53s 55s	
Norfolk.....	50s 51s	

* This is a nominal price.

POULTRY.

There is little variation to note. For some weeks there have been a short supply, and a bad trade.

Cock Turkeys .. 11s. to 12s. each.	Guinea Fowls 2s. 6d. to 3s. each.
Hen Ditto... 7s. to 9s. 0d. „	Teal..... 2s. 0d. to 2s. 3d. „
Large Fowls.. 5s. to 5s. 6d. „	Woodcock.... 4s. to 4s. 6d. „
Smaller do. 3s. 6d. to 4s. 0d. „	Snipes..... 1s. 9d. to 2s. „
Chickens 2s. 9d. to 3s. 3d. „	Widgeon... 1s. 3d. to 1s. 9d. „
Green Geese.. 7s. 6d. to 8s. „	G. Plover.... 1s. 9d. to 2s. „
Ducklings 3s. 9d. to 4s. 6d. „	Pigeons.... 1s. 2d. to 1s. 3d. „
Wild Ducks 2s. 3d. to 2s. 6d. „	Larks..... 1s. 9d. to 2s. per doz.

TO CORRESPONDENTS.

VINERIES (H. Brain, S. Fitz, A. Learner, and others).—See an article to-day, by Mr. Fish.

PLANTS FOR FRONT OF HOUSE, &c. (Troublesome).—You will be attended to.

LONDON GARDEN (S. P.).—We fear that there is much against you; but we will think carefully over your case, for we should be glad to assist you.

MANURE (I. W. C. W.).—Buy the stable-manure in preference to the bones. Char the chips. The scot which has been exposed to an intense heat, so as to be of a fawn colour, is of little worth, except for improving the staple of a heavy soil by rendering it more porous.

WOOD-ASHES (A. Verdant).—These are good manure for your kitchen-garden, but not for your greenhouse plants. Spread the ashes over vacant plots, and dig them in. The charcoal you mention will do well for drainage, and the screenings for plunging materials.

PURE BREEDS OF FOWLS (L. Q.).—You cannot be sure of these, if at any time you allow your Dorkings, and Spanish, &c., to associate.

NAME OF FERN (E. C.).—It is *Chiantthes odora*.

BOOK ON THE VINERY (J. M.).—Buy Sanders on "The Culture of the Vine," published by Reeve and Benham, London.

PATENTS (Progress and Protection).—They are inapplicable to gardening contrivances, for they enhance their price, and dear articles cannot obtain an extensive market among gardeners.

NAMES OF PLANTS (W. S.).—It is *Asytasia scandens*, called by some *Henfreyia scandens*, and *Rachia quaternaria*. It is a native of Sierra Leone. (J. B.).—*Chimonanthus fragrans*, a most desirable plant for a south or south-west wall. (R. K.).—1. *Vellheimia glauca*. 2. *Begonia parvifolia*. 3. *Begonia sinuata*. (L. S. G.).—Yours is *Eunonymus europæus*, or Spindle-tree. It is readily increased by seeds and layers. The fruit is powerfully purgative.

MOSS ON LAWN (B. W.).—Do not destroy it. A mossy lawn is the best of all lawns.

PULLET DROPPING HER EGGS (S. W.).—Do not let her have a perch; and do not let her out until after she has laid.

CARROT CULTURE (M. Spreikelson).—Mr. Errington says that he has never had so fine a crop of *Allingham Carrots* for twenty years. Whether by sowing in February, or not, he cannot say; but has so much confidence in early sowing as to induce him to do the same again in 1856.

GRUB AT THE ROOT OF PRIMULAS (S. W.).—The larvae which you have sent us as attacking the roots of the *Primula sinensis*, are those of the troublesome *Oliorhynchus sulcatus*, figured in our Vol. iii., p. 125. You must at once report your plants, carefully shaking the mould off from the roots, and sifting it, in order to discover and destroy the grubs.

DISEASE IN BANTAMS (Schrightl).—The disease—which is described as a kind of convulsive fit, occurring in fowls apparently in robust health, and from which "they recover entirely, in a few seconds, if taken up; but die, invariably, in half-a-minute, if left unassisted, and, in such cases, decomposition rapidly ensues"—is of so peculiar a character, and the

symptoms, apparently, so contradictory, that I could not offer an opinion without examining a case.—W. B. T.

GROWING MANGOLD-WURTZEL SEED (J. Dote).—The roots ought to have been planted in November. As it is, plant immediately the finest, and the most uninjured in root and top. Put them in rows, three feet between each two rows, and the roots one foot from each other in the rows. Your seed will ripen late. Plant in a warm, sheltered spot, on a light loam, but do not manure it. By so doing you will do all you can to make up for lost time. Bury the roots to the same depth as they are buried when growing naturally.

BAD-FLAVOURED EGGS (J. F.).—It is considered by some that the Cochlin eggs are stronger in their flavour than any others, and many delicate persons reject them in consequence. But it does not amount to the unpleasant smell and taste complained of by you, even in their eggs just laid. It is proved beyond a doubt that an egg is flavoured by any particular food given to the fowls. We have known it tried with onions, garlic, and malt-dust. We should, therefore, be disposed to think your Cochlin fowls get at some food that is not eaten by the others.

DOUBLE-COMBED HEN AND SINGLE-COMBED COCK (Amateur).—The probability is you will breed both single and double-combed chickens. The latter is by no means imperatively necessary upon a White Dorking, but it is very desirable.

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Advertisements.

Will be published in February.

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Agent for London: G. COX, 18, King Street, Covent Garden.

WEEKLY CALENDAR.

FEBRUARY 19—25, 1856.			WEATHER NEAR LONDON IN 1855.				Sun	Sun	Moon	Moon's	Clock	Day of
D	D		Barometer.	Thermo.	Wind.	Rain in	Rises.	Sets.	R. & S.	Age.	bf. Sun.	Year.
M	W					Inches.						
19	Tu	Podura plumbea.	29.966—29.883	33—20	E.	—	10 a 7	19 a 5	7 8	13	14 10	50
20	W	Omalum planum.	29.732—29.691	35—8	E.	—	8	21	rises.	☺	14 4	51
21	Th	Sun's declinat., 10° 44' s.	29.855—29.837	30—10	N.E.	—	6	22	6 a 4	15	13 58	52
22	F	Bruecius ater.	29.934—29.877	34—23	E.	—	4	24	7 13	16	13 50	53
23	S	Parnus sericeus.	29.986—29.853	37—18	N.E.	—	2	26	8 22	17	13 42	54
24	SUN	3 SUNDAY IN LENT.	29.007—29.391	44—33	S.W.	60	VI	28	9 31	18	13 34	55
25	M	ST. MATTHIAS.	29.354—29.314	49—37	S.W.	10	57	30	10 43	19	13 24	56

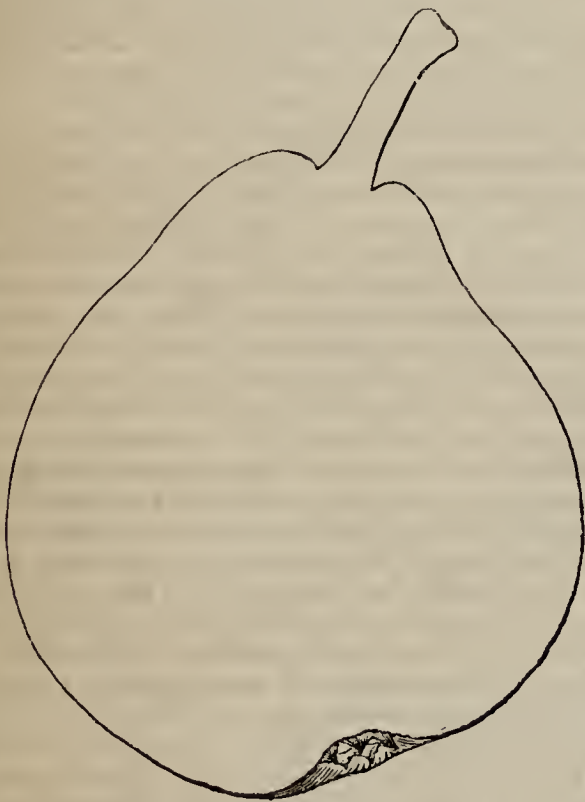
METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 46.5°, and 32.8°, respectively. The greatest heat, 59°, occurred on the 24th, in 1856; and the lowest cold, 15°, on the 20th, in 1852. During the period 99 days were fine, and on 97 rain fell.

THE FRUITS AND FRUIT-TREES OF GREAT
BRITAIN.

NO. VIII.

JOSÉPHINE DE MALINES PEAR.

BEFORE the planting season closes, we are anxious to make our readers acquainted with this and the following Pear, both of which are possessed of such merits as to entitle them to a place in every collection.



The fruit of *Joséphine de Malines* has a delightful odour, like that of the Hyacinth, a peculiarity which belongs, so far as our experience goes, to this variety alone. It is, in size, about two-inches-and-a-half wide, and the same in length, and of a long turbinate (or top) shape, even and regularly formed. The skin is smooth, thin, and tender; when fully ripe of a fine lemon-yellow, with sometimes a slight orange tinge on the side next the sun, and greenish on the shaded side; the surface strewn with freckles of smooth, delicate, pale brown-russet, and with a russety patch of the same colour round the base of the stalk and the eye. Specimens grown in heavy and cold soils are more coarse and russety, and have not the orange tinge. The stalk is three-quarters-of-an-inch long, obliquely inserted in a small, narrow cavity. The eye is open, with short, acute, and

erect segments, filled with stamens, and placed in a round, shallow, saucer-like depression. The flesh is of a sort of amber or pinky tinge, very melting, and very juicy; the juice sugary, richly flavoured, and vinous, with a most delightful aroma, which, in some specimens, we have thought resembles that of the Rose, and in others the Hyacinth.

The season at which this admirable Pear is in perfection should be from January till March, a period, of all others, when something many degrees inferior to it would always be acceptable; it is, therefore, in many respects, a variety which deserves the attention of every planter. This season, however, which has been remarkable for the premature ripening of Pears, we had it as early as the middle of December.

The size which the fruit attains is sometimes larger than that given in our figure; and one sent us by Mr. Rivers, of Sawbridgeworth, was considerably larger, and of a beautiful deep, lemon-yellow colour, and a powerful Hyacinth perfume. The peculiarity of this specimen was, that it was grown on a tree grafted upon the *Hawthorn*, the fruit was exquisitely flavored and melting, and, judging from this example, we should be inclined to think that it is a variety which is disposed to make itself quite at home under any circumstances. We remember having a very large tree of *Reine des Poires* twenty years old, which was grafted on a Hawthorn, and bore fruit abundantly, remarkable for its fine colour.

The tree of *Joséphine de Malines* is quite hardy, and an abundant bearer. It makes a handsome pyramid, and being one of those which attain only a medium size, and having the branches closely furnished with buds, it is well adapted for espalier or wall training.

This variety was raised by Major Esperen, of Malines, about the year 1830, and named *Joséphine* as a compliment to his wife.

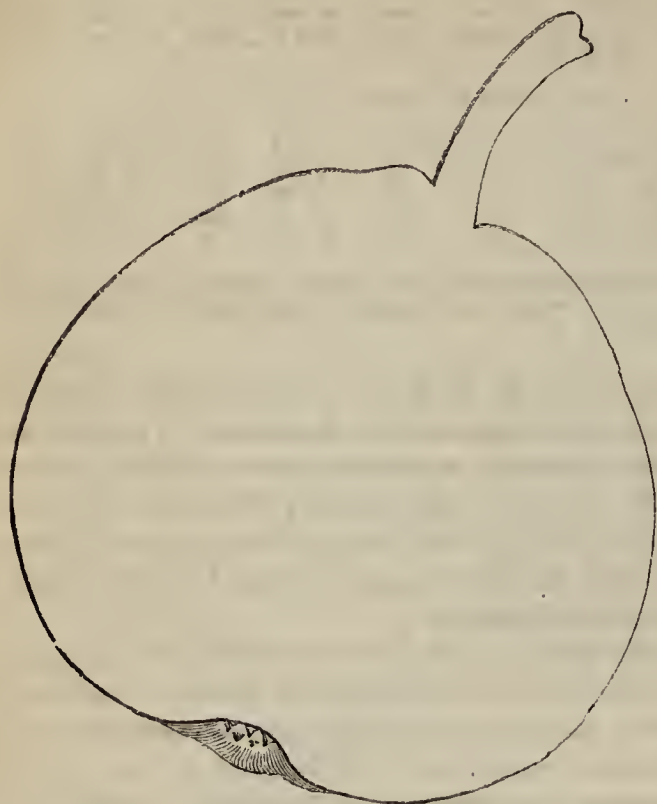
NO. IX.

ZÉPHIRINE GRÉGOIRE PEAR.

THOUGH this is a variety which does not recommend itself so strongly on account of its season of maturity as the preceding, still, it is one which is highly deserving of general cultivation.

The fruit emits a delicate perfume, is from two-inches-and-a-quarter to two-inches-and-half in width, and the same in height. Its shape is roundish turbinate, even and smooth on the surface, except at the base of the

stalk, where it has sometimes a prominent swelling. The skin is smooth and shining, of a pale waxy



yellow colour, very thickly covered with minute dots, and with an orange tinge on the side next the sun. Specimens from a heavy soil have the skin pale green, with a yellowish tinge, thickly covered with russetty dots, and some tracings of russet. The eye is very small, with short, erect segments, generally placed on a level with the surface, but sometimes in a shallow depression. The stalk is about an inch long, stout and woody, and inserted without any cavity. The flesh is yellowish, very tender and buttery, melting and juicy; the juice is richly flavoured, sugary, and vinous, with a peculiar and powerful aroma similar to that which is imparted to wines by Elder flowers. The flavour somewhat resembles that of the Melon.

This excellent variety is in season from November till February, and is of first-rate quality. In cold and heavy soils the flesh is rather coarse grained, and slightly gritty, but still very juicy and sweet.

The tree is perfectly hardy, an excellent bearer, and is well adapted for a pyramid, or for training. It was raised by M. Grégoire, of Jodoigne; and for the specimen from which our figure was taken, we are indebted to the kindness of Mr. Rivers, of Sawbridge-worth.

POTTING CUTTINGS AND SEEDLINGS.

If a young gardener begins his cuttings for the flower-beds as early as this in the season, and has good ordinary cuttings to begin with, he will not thank an old gardener for telling the world that he, the "young sprig," ought to strike fifteen to the dozen of them. A Linnaean class-man could do more than that. Your man of Natural Orders and affinities, who can grasp and let down a thousand plants at one swallow, would not take off his gloves to strike five-and-twenty to the dozen of them, in half the time anticipated, that is, of three-fourths of the bedding plants. So that instead of boasting of my pupil, as seemed to be the case the other day, most gardeners, of any standing, might well suppose that I either "put my foot in it," or had intended to cast a shade over the merits of my friend. But, no, there was nothing of the kind. If he strikes fifteen to the dozen of those Geranium cuttings, it is more than

nine clips out of the old block could do; and for this reason, that out of forty-eight cuttings of *Lady Caroline*, there were only four of them which were over two inches long; a few of them were an inch and from that to an inch-and-a-half; but thirty of them did not exceed three-quarters-of-an-inch, and some were not so much. The cuttings of *Lady Middleton* Geranium were, generally, a shade longer, but not much; two-thirds of the whole could not be fixed in the cutting-pots unless the top of the soil was covered with sand, and watered before the cuttings were put in. Then look at the time, the middle of January, the dearest time of all the year for cuttings to move; and the necessary watering before planting, in order to obtain a firm footing to such little bits, was an aggravation of the evil which could not be avoided; therefore, taking all these difficulties into the account, fifteen plants, next May, for every twelve of those cuttings, would not be bad work, as times go. Supposing that every one of the cuttings took root, there could hardly be more than three or four in every dozen from which the tops could be cut for second cuttings to make up so many to the dozen.

Now, I had a particular reason for putting the question in that light. We are all gardeners here in Surbiton, but some of us are very young beginners; and of all the puzzles, with such, the greatest is about the lengths of the different kinds of cuttings, their strength, and age, and the proper time to put them in. As soon as a hotbed is ready from this day forward, no one need ask if the cuttings of any bedding-plant are ready, for all such cuttings must now be fit to take off if ever they will be; and the cutting of any kind of Geranium that is two inches long is quite fit already. The most elegant of all the variegated Geraniums is still the *Golden Chain*; but it is very scarce yet with amateurs, though nice little plants of it are to be had for a shilling each, or nine shillings a dozen; and this is just the time cuttings of it are most profitably made. Old, hard wood of it will strike now, in a brisk heat, nearly as soon as the young growth of last summer. The compost for these ought to be at least one-half sand, the other half should be one-half peat and one-half leaf-mould; the whole rubbed briskly three or four times between the palms of the hands, so as to make it uniform throughout. It is surprising the improvement which may easily be made in the best compost for cuttings and for seeds by passing it thus through the hands. This thorough amalgamation of the parts seems to be the turning point in the secret of success with cuttings of this class. All the *Verbenas* prefer it to all other mixture, as one may see by the flaky appearance of the young roots; all the little blue *Lobelias* delight in it, as it were; *Anagallis* the same; and as to the *Variegated Alyssum*, the great favourite with us all, it is just the very marrow of a compost for it; all the *Ivy-leaved Geraniums*, and those represented by the *Shrubland Pet*, *The Dandy*, the *Gooseberry-leaf*, and the *Lady Plymouth* Geraniums, strike better in it than in any other compost I ever tried, or have seen tried by others; while *Tom Thumb*, and all other Scarlets, with the greenhouse-like kinds, as *Diadematum* and *Lady Mary Fox*, strike better if loam is put in the place of peat, and only one-third sand is used. This is also the best compost for striking bedding *Calceolarias*, and for raising all kinds of flower-seeds which are larger than the seeds of *Mignonette*; but such small seeds as those of all kinds of *Campanulas*, *Lobelias*, *Calceolarias*, and *Portulacacas*, do better in the compost for the *Golden Chain* cuttings.

Thus, we see how very easy it is to make the very best compost for seeds and for cuttings of all kinds of flower-garden plants. Only two kinds of compost for one thousand kinds of seeds and cuttings; but, better still, every one of the number will do, if needs be, in either of the mixtures; but, doubtless, the rooting turns out

best, in the long run, if the proper distinction is kept up in these two simple composts. As, for instance, the *Golden Chain* strikes in the compost for *Tom Thumb*, but the roots cease to thrive properly soon after they touch the loam, and the growth begins to stint in proportion, unless the plants, after rooting, are kept in a much hotter place than is requisite for them. All the *Anagallis*, on the other hand, strike soonest, and make longer and more fleshy roots in the lighter compost; but as soon as they are fit to be potted off peat is almost poison to them, and they require the compost to be one-half, or rather more, of strong loam, yellow loam being the best. Indeed, the principal reason why such a beautiful flower as the blue *Anagallis* is not more cultivated among amateurs, is the difficulty of keeping it alive in the light composts which are in general use.

Again, the pretty little yellow *Oenothera prostrata*, which every body admires so much at the Crystal Palace, strikes best in the lighter compost; but flowers much freer, and rambles about less, the stronger the loam in the bed is. There was a strange doctrine which went in the teeth of these now-well-known facts, which obtained common consent among the gardeners of the last generation, and on to the middle of the present century, namely, that all seeds, and most cuttings, ought to be raised in the very same kind of compost as best suited the adult plant. But the necessities of the massing, or bedding-out system, soon refuted that doctrine.

The great error of the present day, among amateurs, is, their fancy for *pots*, which are three times larger than they ought to be for seeds and cuttings. I cannot discover any plausible reason for this fancy; but the next prevailing error among them is easily accounted for. Their nursing pots are not half big enough; they go to the nurseries where the best plantmen in the world are obliged to nurse their young stock in single pots so small, that they tax their utmost skill in the attendance; but nursery plants must be reared in single pots, to meet the trade—not that single pots, or very small pots, are the best for nursing; very far from it, except in special cases, for which we have no matches in the flower-garden. There is nothing under the sun more perfectly absurd, and out of all reason, than to see an amateur potting off a potful of cuttings, of *Verbenas*, for instance, into single little pots called *sixties*, even if he was as expert at their management as the best hands in the nurseries, and had, like them, nothing else to take up his attention; for he is multiplying his own work about fourfold, and is risking the chances against the well-being of his plants, in the ratio of six or eight to one. If he would plant six or eight of his rooted cuttings round the sides of one pot of the 48-size, and keep them there for another month or five weeks, his own time and the room at his command, with the benefit to the plants, would all be increased fourfold.

One day, last week, I potted off about 250 *Calceolaria* seedlings; and see if you can guess into how many pots did I put the whole. I may say, however, they were potted on the colonising system; the best system for most of those plants which come from very small seeds. They were very small, and the pots are very large, the largest kind of the size called 24s; they occupy just two of these pots, and there are twenty colonies in one pot, and eighteen in the other,—the average number in each colony is then easily made out. But, suppose I had parted each colony, and put it into a separate small pot; what with my going to London, and “gadding about,” I should lose more than the one-half of them before the end of March; but now, the chances are, that I shall not lose more than one or two per cent of them during the whole season. If I had ten thousand seedlings of the same stamp, and the Crystal Palace to grow them in, I would not pot one of them the first time, from the seed-pots, otherwise than on this colonising system. I

verily believe, that I could impart some useful hints to the head of our own Colonial Department.

The way to colonise seedlings is this—when the pot of seedlings is so full that one hardly knows how to deal with it, give it plenty of air, that is, just as much fresh air as the seedlings can endure with impunity; nothing more nor less than that is ever meant by a gardener, when he says, “give plenty of air.” If seedlings, such as are meant in this communication, get plenty of air from October to March, or from a sowing in February till they are fit for colonising, ten thousand of them will not take much room; a dozen pots might hold as many of some of the kinds. But, as I was going to say, when a pot is so full that it must be emptied, and its tenants parted, one could do it any day during the winter, or bad weather in the spring with much, or hardly any, risk to the seedlings; and that is a very important point, as few could venture to pot them off singly in the dead of the winter, or under bad weather, without the convenience of a hothouse to nurse them in. The way of performing the operation is to have a stick with a flat end, in the shape of a chisel, but not much more than a quarter-of-an-inch broad; the flat end of the stick is first pushed down a little quite close to the side of the pot, half-an-inch will be deep enough for most of the smaller kinds; now “heave up” a square-inch or two, by levering the stick against the pot; now take a better hold of the raised piece by putting in the flat end of the stick just under the very centre, carry it so, and put it on a piece of paper by the side of the colonial pot, and part it into four, or five, or more pieces, according to the kind of seedling, and plant each piece an inch apart all round the side of the pot, and then all over the centre, if you have many to plant, if not, one row round a 48-sized pot is the safest way. After the first piece, you have full sway to take the seedlings up in large flakes or flat patches. After watering the colonial pot, or pots, and the wet has subsided, go over every one of the colonies and see that the soil is up equally round them, and make it level as a die between them by adding fresh soil to the hollow parts. This is the nicest and the very safest way with these kind of things. It is the same to them as the potting six, eight, or ten, rooted cuttings into one pot is to the principal spring cuttings. At the next parting, both kinds are easier to handle and to deal with in other respects.

D. BEATON.

REMARKS SUGGESTED BY WEEKS'S ONE-BOILER SYSTEM.

THERE have been many inquiries lately as to the practicability and economical utility of heating several structures altogether, or separately, as required, by means of one furnace and boiler; or by so dividing a long structure into several divisions, each of which might be heated at will; and the simplest and cheapest modes known to us for effecting these objects have been fully detailed. Since the time, however, that Messrs. Weeks' aroused the horticulturist from his dream of perfection in his boiler for one or two houses, by not only heating their village of glass-houses by one boiler instead of six, but at a cost reputedly so small, that made many of us country wights scratch our ears in suspense and wonder, questions almost innumerable, and of singular shape, were propounded, which it was impossible for me to solve, because knowing personally as little of the matters in dispute as the inquirers themselves. Whether or not the Messrs. Weeks' made a mistake in their estimate of expenses at Kew, and which, in the face of the facts stated by Dr. Hooker and Mr. Smith, left rather an unfavourable impression as to the general economy and efficiency of their one-boiler system altogether; or whether the reputed expense of 3s. for fuel,

and 8d. for attendance per day, are the average expenses during the whole year, and not the expenses for days of extra cold, I shall leave for others to determine, and for Messrs. Weeks' to explain. If the stated sum refer to the average of the year, the economy, though striking, will not be so wonderful; as, if such a sum for fuel would do in frosty weather, then the annual expense would still be further diminished from a third to one-half. Such estimates are difficult to make, unless extending over long periods, for every one conversant with the matter knows, that under the general modes of heating practised, more fuel may be wanted in one week than would suffice for many weeks at another time.

In all such matters, considerable allowance should be made for the statements of men who are earnest enthusiasts in their profession, and who thoroughly believe they have effected a great improvement, and made a valuable discovery. Without that enthusiasm, there may be respectable proficiency in the knowledge of the past; but there will be few advancements upon the intelligence of the present. The enthusiast is often styled a visionary through a part or the whole of his career; but without his earnestness, we should have but few eras to record in the annals of progress. Without endorsing what has been advanced in favour of the one-boiler system, yet, lately having passed an hour at the establishment of Messrs. Weeks', attended by Mr. Rosenberg, the very intelligent horticultural manager, my present impression decidedly is, that for all similar large establishments this one-boiler system is a move in the right direction, and that some of the objections are either based on misconceptions, or refer to mere matters of detail, rather than those of the principle involved.

For instance, a correspondent, page 78, Vol. XIV., because 5000 feet of pipe are heated, comes to the conclusion, "that the extreme end of the pipe must necessarily be 5000 feet from the end of the boiler. In other words, the water in the pipes would have to circulate that distance before returning into the boiler again." Now, it appeared to me that there could hardly be a point in the whole establishment where the water would be 500 feet from the boiler. This will at once be seen by the published plans of the position of the glass-houses. The show-house, &c., next the King's Road, may be considered as the end of an oblong parallelogram, along the sides of which the houses and pits are arranged, leaving a space free of buildings in the centre. On one side, behind the show-house, (the side appropriated to tropical plants,) the furnace and boiler are situated. From the boiler proceed two flow and two return-pipes. One of these, a flow and return, proceeds right to the extremity of the side of the square devoted chiefly to tropical vegetation; the other passes through the show-house, and along the other side of the square, where hardier things, as *Epaeris*, *Heaths*, *Fuchsias*, &c., are chiefly grown. Both these flow-pipes *rise*, though almost imperceptibly, to the farther extremity, and there have an air-pipe attached. Even with such a powerful boiler its range of action is limited. Mr. Rosenberg showed me the point beyond which the heated water in the flow-pipe would not pass; and the return was made at that point, namely, 365 feet from the boiler. Within that distance from the boiler they had yet found no limits to its power, in heating houses, to the right and to the left, of the main flow and return-pipes, giving bottom and top-heat at will, and the pipes placed in almost all conceivable shapes, as stacks, pillars, &c. Several of these, quite cool, were quickly heated, to oblige me, by turning a cock or a valve. I had long known how small a pipe or opening was necessary for this purpose when properly placed.

It will now, I trust, be clearly seen, that the whole parallelogram of houses and pits is heated by a flow and return-pipe passing right through each side. It will,

also, be seen that in mild weather the flow that passes through the hardier departments may be shut off at will. These of themselves, however, give off comparatively so little heat as not to be injurious. The temperature of the particular house is regulated by bringing its own proper pipes into connection with the main flow and return. At the extremity of the cool side, we found a small house for forcing flowers, &c. This has been objected to as great waste; because, before it can be heated, the water must pass where it is not wanted often—through more than 300 feet, and return as far. I believe the object to have been to show that at such a distance a forcing temperature could be maintained, while all the houses between it and the boiler were comparatively cool. As a matter of mere economy, the forcing of these flowers might have been effected on the tropical side of the square. It has, also, been objected, that before you can give a desirable temperature to any one house, on any one side, you must first heat something like 700 feet of flow and return-pipe, and that, if this is simplicity, it is not economy. True, so far; but then, the general arrangements here are such that the houses that require similar temperature stand on one side of the square, and desirable differences can be given by the amount of piping in the house, and the admission or not to it of the heated water. Mr. Weeks' could gain nothing by a different arrangement. In a private establishment, these main flow and returns could easily be separated into several divisions; and even this objection would then fall to the ground, by making those divisions next the boiler the first to be heated.

"Allowing," say others, "that something is gained in fuel, and less attendance in firing, by the one-boiler system, this is more than neutralized by the extra attendance upon valves; and this expense, at £1 10s. or £2 each, would soon mount up to the expense of separate boilers." I have had something to do with stop-cocks and valves, and found all trouble with them a bagatelle in comparison with separate furnaces. The expense of costly valves is a more serious matter; but what necessity for such cost? I know not what Mr. Weeks' may charge; but I should hesitate to give him any such amount as the above. Wooden plugs, in many cases, with holes slit in their sides, answer equally well; and in many of the main houses, a pipe one-inch-and-a-half or one inch in diameter, with a stop-cock, answered all the purpose, and that could not require an outlay of many shillings. Were I to take out a patent, (and I give the idea gratis to the hot-water professors,) I would use this simple means for effecting divisions, and rendering each division perfect in itself, instead of the costly means now often employed, having proved, as far back as Mr. Weeks' father's time, how small an opening was sufficient to give a good circulation to heated water.

But the question of economy itself, as to the consumption of fuel by one large, powerful boiler, as contrasted with a number of smaller ones, is doubted by some of our friends, for whose practical opinion I have the highest possible value. They tell us, that a given quantity of fuel contains only a certain amount of heat; and a given quantity of water will require a certain quantity of that fuel to raise it to a certain temperature; and, provided boilers are so placed as to receive the same amount of heat from that fire, there can be little difference in their capabilities, as the loss can only be what is absorbed by the surrounding brickwork, or gets out at the furnace-doors, or mounts up the chimney; all of which are so far correct: and many, like the correspondent alluded to, though believing that the power of a boiler is less owing to its size than the surface exposed to the direct action of the fire, cannot conceive "how it is possible there could be such an amazing difference in the amount of surface exposed to the action of the fire in two boilers *nearly* of the same size."

Now, few would like to affirm that any heating apparatus was so perfect as to prevent the loss of heat. What goes up the chimney goes to warm the general atmosphere. What proceeds from brick-work and furnace-doors may be used for giving warmth to sheds, &c.; but to me, it seems almost self-evident, that the loss from one chimney must, other things being equal, be much less than from a dozen or a score. Besides, that chimney can be better attended to; the damper can be kept just in the right place; the furnace-door all tight; the ash-pit door with just the air, and no more, that is essential to the necessary amount of combustion; because the whole thing comes at once under the eye of the superintendent. Are there many who could say the same of a dozen of separate furnaces and boilers, under the general management that can, in most cases, be given them. If so, their lots have been pleasant ones. They have never required, like the more unlucky writer, to choke their rising choler, at finding dampers in, when they ought to be out, and out, when they ought to be in, within half-an-inch of their length; furnace-doors half open, that they may not require looking to so often; giving thus a double free outlet to waste the heat; and the ash-pit door, which ought to have been shut, standing open in company, or, most likely, its hinges broken, or itself nowhere to be found. The waste from such negligence is not little; and it would require the eyes of Argus to see it at all times, to say nothing of preventing it. The one furnace would obviate this to a great extent.

So long as the practice will continue of setting one house down here, and another down there, there must be separate means of heating them; and it would be great waste to place a great bulk of a boiler to heat a very small house; and it would be just as much against ultimate economy to use a very small toy of a thing, if much and rather continuous heat was wanted from it. I have had something to do with small boilers that were to do wonders, and were to cost for fuel almost next to nothing; but I found them both expensive and exceedingly troublesome, and, as a general rule, there is no first saving, involving a greater future outlay, than using the smallest boiler, and the smallest possible amount of piping for a defined purpose; while, in every emergency of severe weather, there will be a double danger of the pipes being too hot, and the boiler giving way.

The power of a boiler will be in proportion to the surface exposed to the fire; the rapidity with which it is heated; and the quickness with which that heat is transmitted to the pipes. Boiler-makers are so aware of this, that whether made on the saddle, or on the conical form, the inner and outer sides are placed so close together as to contain no great quantity of water between them. Now, without indorsing what Messrs. Weeks' say of their boiler, the slightest inspection of it will at once convey the idea that its peculiar construction, and the mode in which it is placed, present a very large surface to the direct action of the fire. The father of the present Mr. Weeks was, I believe, the inventor of tubular boilers. These were generally made in the shape of a parallelogram, open at one end, the other end being pipes; the bottom, top, and sides the same; the open end being the furnace-door. I found these very easily worked many years ago—much more easily than boilers generally in use at that time. The boilers of the present Messrs. Weeks are formed of a *double* row of tubes or pipes, and arranged in a circular instead of a square shape, and they stand perpendicularly, instead of being laid down horizontally. A very correct representation of this boiler is given in the advertisements. It is three-feet-and-a-half in diameter and five feet in height; the double row of upright pipes being fixed, top and bottom, at the circumference of the circle, leaving an open space in the centre to receive the fuel easily,

which is put in by opening a round lid at the top. Both these rows of tubes stand quite free of the wall. What may be considered the bars of the fire-place, are merely part of the boiler, being also pipes. Even when the fire is very low, as when I saw it, it is evident that its heat would rise about and round the whole of these five-feet upright tubes, because placed directly beneath them. The fire was quite bright, though the damper was almost close in, and about the sixteenth-of-an-inch of an opening was perceptible at the ash-pit door.

One of the strongest objections I have heard to the use of such a one-boiler system—and a very strong one it is—is the danger and the consequences of such a boiler bursting and going wrong. I confess, that until used to it, I should not sleep soundly with the reflection that all the inmates of these many houses might be sacrificed by the insecurity of the boiler. But small boilers sometimes go wrong, and crack and burst, and there is mischief in consequence. Now, the remedy is more easy of application in the case of one boiler than in that of a dozen or twenty, namely, having a spare boiler to work in the case of such a contingency. If for a moderate-sized establishment, a fifteen guinea boiler would be sufficient, the placing of a second, so as to be connected with the same main flow and returns, and to be worked when necessary, would be but a small percentage for security upon the whole outlay; and without such an arrangement, I should not like to have a number of valuable houses depending on one boiler.

Our friends may now form their own opinions. In unison with the remarks made, my present impression is, that where glass-houses are, or can be, so arranged in groups, the heating of them from one furnace and boiler, instead of many, but having one in reserve, is a movement in the onward direction, combining elegance, efficiency, and economy. There is a region of cloudland hanging over the capabilities of boilers of different shapes, which can only be dissipated when clearly tried against each other by a disinterested party who has sound knowledge in heating matters.

I will merely add, whether any thing owing to the effectiveness of the heating, or not, that all the plants, hard-wooded and soft-wooded, in greenhouse and stove, were clean and in excellent order at Messrs. Weeks'. The shew-house was elegantly arranged, and the beds bordered with margins of Ivy. There was some beautiful pottery-ware, for standing and suspending, brought from Germany by Mr. Rosenberg, and ornamental pots fitted for parlours and drawing-rooms.

R. FISH.

WOODS AND FORESTS.

(Continued from page 352.)

IMPROVING OLD PLANTATIONS.

It is really very distressing to an active mind to see so many acres of woodland, in Britain, either sorely neglected, or sadly mismanaged. The number of letters that I have on this subject, requiring advice and information what to do with neglected woods, is really astonishing. No one in the practice of woodcraft could believe the amount of ignorance throughout the length and breadth that exists. It has been the practice of numbers of owners of estates to order their manager, *alias* agent, to plant large breadths of ground with timber-trees; but it is a melancholy fact, that after the trees were planted, they were left to take their chance, with a kind of forlorn hope, that, perchance, they might do well. Perhaps, some twenty years afterwards, a few might be found that had made a little progress; then the question comes—This wood has been neglected, and has grown very unequally; what is to be done with it? There is a group as thick as a nursery-bed, twenty or thirty feet high, with naked stems not much thicker

than a good walking-staff. Shall these be thinned? In another part the trees are so thin that the side-branches have all grown to a disproportionate length, the leading shoot itself not stronger than the branches; in fact, they are mere bushes. In some other part, it may be, that improper trees (according to the soil) have been planted, and they have not grown at all, but have been choked by common Sallows, Alders, Thorns, and Briers. This is, most certainly and most sadly, the condition of the greater part of the woods in Great Britain. The remedy is the thing that is wanted. A garden that has been neglected, and its weeds allowed to scatter their seeds, cannot be got into good condition again for years. The old adage, *one year's seeding causes seven years weeding*, applies, in principle, to woodcraft as well as gardening. A neglected wood cannot be put into a good trim at once. The rough-shod method of thinning the trees till they are at the distance they ought to have been if thinned at the proper time, and trimming up the bush-like formed trees, till they look like as many long-handled birch brooms—these, summary proceedings will not improve, nor cancel the years of neglect gone by. Trees thinned too severely are greatly injured thereby. The sudden free circulation of cold air stunts their growth; and if, in addition to this, what few lower branches they have are pruned close off, the effect will be most disastrous. I have seen plantations so thinned and trimmed up that have stopped growth entirely for seven years.

If the neglected plantation requires thinning in any part, or the whole, that operation should be done gradually. The smallest and worst trees may be removed the first year, perhaps, to the amount of one-eighth of the number. Let these be cut down close to the ground, and removed away. Then observe the rest, and if any have double leading shoots, reduce them to one; and, also, prune off one or two side-branches of any that may have too many, though there is not much fear of that, for most of the branches of such thickly-grown trees will be dead. Should any dead branches be still left on the trees, all such, without mercy, should be cut off close to the stem with a sharp saw, the parts to be smoothed over with a sharp knife. Many trees have had these dead shoots left on, and the consequences are, those dead knots we see too frequently in what would, without them, have been good timber, but, with them, is rendered almost useless, being only fit for fire-wood.

After this cautious thinning and pruning of such parts of the wood as may have been too thick, then turn attention to the trees where they have stood thin, and have all their branches on looking like immense bushes. I confess, it is a difficult matter to judge what to do with such deformities. As is the case of the too thick trees, the dressing of these all-branch trees, so as to bring into good timber, is a work of time; but, with patience, it may, nay, has been done, and the way is this—first to fix upon the best central branch to form the future bole, or stem, of the tree. Then cut clean off, close to it, two, three, or four of the lowest branches. Ascend into the tree, and cut out two or three of the central shoots near to the one reserved for the stem. Then, observe the rest of the branches, and shorten them in considerably, remembering always to leave a side-branch at the part where the cut is made. This may be called a thinning of the branches, as the other is the thinning of the trees, and this, too, must be progressive. Too many branches must not be cut off at once. Better let too many remain on a tree that has been neglected, perhaps, all its life, than take too many off at once.

Again, should any parts of the wood, from having been planted with improper trees, be overrun with what may be termed forest-weeds, such as common thorns, and the like, or such soft-wooded, useless trees as grow

in almost any soil, then such a part should have all the rubbish cut clean away, the ground, if wet, be well drained, and then planted anew with such trees as will grow in such improved soil. As such isolated spots in such a wood would be sheltered, all sound trees, of a moderate size, carefully removed with all their roots, and planted immediately, would answer equally as well as small trees, and would sooner fill up the gap in the wood.

Should there be, in such a neglected plantation, any old trees evidently at their full age, then all such should be cut down at once and sold for what they would fetch. Old, gnarled Oaks are often found in such a place, and sometimes are very valuable when cut up and polished, on account of the beautiful markings and shadings of the irregular layers of wood, or knots, on parts of such trees; yet, as trees to stand, they are worse than useless, for they not only do not progress themselves, but occupy the space that younger and healthier improving trees ought to occupy. I am, in my mind's eye, imagining such trees in a young, thick, thriving plantation. Such I would, without care or fear, cut down; but in another situation, in an open part, or in a pleasure-ground, such ancient picturesque trees should stand for ever. I should value them as the apple of mine eye, and consider it little short than sacrilege if any daring hand should touch them with either axe, saw, or knife; but old, decaying trees in the midst of a wood, I would cut down at once. In such situations, I have sometimes met with the stump of a tree with all the soil washed away, leaving a bundle of roots as thick as my leg visible. Such a stump, cut off close to the ground, sent up a number of shoots fresh and healthy from most of the roots. These I thinned out, leaving the best and strongest. Such shoots grew rapidly, and, by being regularly thinned and pruned, made very decent trees in a very short time.

All the above operations I am supposing to be done in the first year of renovating the neglected plantation; I would then recommend the whole of the trees to be let alone for two or three years, but not more, certainly. The thinned part will have shown considerable improvement, in the tree stems thickening and becoming clothed with small spray, in consequence of the light admitted by the thinning out of the weakest and worst trees. In the case of pruning branchy trees, such will be found to have progressed in attaining a leader, and the main stem increased in thickness, and also part of the young spray will have made its appearance. The part entirely filled and newly-planted will have progressed also. The young trees will have just begun to grow, and the Brambles, and Hazels, and Sallows, will have made strong shoots. Now, in the first of these three cases, the work to be done consists in taking away about one-sixth of the worst of the trees left, looking over the remainder, and pruning them gently, leaving part of the young spray, to prevent the stem from cold and to draw up the sap. In the case of the branchy, bushy trees, the work to be done to them is to take off about two more tiers of the lower branches, to shorten in the remainder, and to see that the main or leading shoot has no interruptive neighbours to rob it of its full quota of nourishing sap.

In the third case of replanting to fill up, see to the young trees, and prune them *with the knife only*, taking away all other leaders but one, and shortening in the points of the overgrowing branches; then cut down all the wild shrubs and weeds. The former will make nice sticks for the flower-garden, and the latter will decay, and help to feed the newly-planted trees. This thinning and pruning, judiciously and perseveringly followed up, during ten or fifteen years, will quite renovate the wood in appearance, and increase its value tenfold.

T. APPLEBY.

(To be continued.)

CONSEQUENCES.

By the Authoress of "*My Flowers*."

(Continued from page 202.)

"A CHANGE came o'er the spirit of my dream;" a great, and apparently happy, change took place in the outward circumstances of Mr. and Mrs. Grosvenor. Events occurred by which Mrs. Grosvenor became again possessed of her full annuity; and the long period of privation, anxiety, and seclusion ceased. Ease and prosperity again returned, and the fetters that had so long crippled their movements were taken off.

The real Christian possesses the blessed privilege of knowing that "all things work together for the good of those who love God." The men of the world—those who scramble, as it were, through life—who toss about upon circumstances without rudder or compass, that fear the effects of the ever shifting wind, yet know not whence it cometh, nor whither it goeth; these men know nothing of the wisdom and goodness of the Lord's dealings, nor can they see the beauty and harmony of all His designs. Nominal Christians, even those who sometimes "for a pretence make long prayers," do not always perceive His gracious dealings either. They do not view the treasures contained in trials, nor the advantage of adversity; and when prosperity comes, they grasp at it blindly and greedily, little dreaming of the thorns that lurk beneath the flowers. I believe Mrs. Grosvenor entered upon her new circumstances as soberly and thankfully as most persons do who are not decided Christians; but, poor thing! she soon found that when riches do not make themselves wings, they often make themselves troubles; and that when she quitted the soft breezes of Wales, and the wild beauty of its retirements, she had left better things than these behind.

The first feelings of release and independence must have been exquisite to the Grosvenors. The world was all before them; they had no one to consult but each other; they might go and do exactly what they pleased. Mixed feelings, however, are the portion of this world. The brightest colours are ever shot with black in the looms of life; and, very likely, Mrs. Grosvenor sighed secretly as the chaise jolted down the narrow Welch lane which led from the gate of the long, steep garden at the back of their pretty cottage, to which nothing beyond a Welsh cart could find any other way. She was going forth into the world with a very violent, headstrong, irreligious partner; and it must have been something like a fresh setting out in matrimony when their lovely retirement faded in the blue distance.

When people have no particular drawing to any place or situation they are sure, in case of an uprooting, to settle in Bath. It is a beautiful city; cheap, pleasant, cheerful, *come-at-able*, in the way of almost all ones friends, and very convenient as to lodging, food, and every other requisite. There is another advantage—the greatest of all put together—a sound, faithful, and earnest ministry; only *that* was not the one thing Mr. Grosvenor sought. To Bath, however, they directed their steps; they had lived there years before; and again they planted themselves within its mild and sheltered walls. Very soon a little society drew round them. Mr. Grosvenor attached himself to the Unitarian congregation, with a thin, pale, clean, cold, hopeless looking pastor at its head, and, of course, the members of that body gladly received a fresh addition to their melancholy ranks. I have reason to believe Mrs. Grosvenor was drawn in to leave her own communion in the course of time; not as agreeing in their tenets, but somewhat in the spirit of those, who—to use the actual words of a lady of birth—"When in Turkey, do as the Turkies do." Some ladies among the upper ranks were of the number of those who denied "the Lord that bought them;" and very possibly the example and persuasion of such companions might have had influence where views were not clear, and opinions not decided. It is of the very highest and deepest importance, dear reader, to have *clear and decided* views in religion. Many amiable, excellent, serious-minded persons, anxious to do right, and to be true Christians, are yet so unlearned in the Scriptures, so unsettled in their opinions, and so foggy in their spiritual vision, that they are impressed by any arguments that are earnestly and with subtlety enforced, and, consequently, are easy to be silenced, overcome, or led away. Knowledge of

the *letter* of God's Word is no security for us; we must be acquainted with its *spirit* and its *power* to make it efficacious. The teaching of the Holy Spirit alone can enlighten our eyes and understandings, so as to be able to discern our eyes and understandings, so as to be able to discern between truth and error; to be enabled to "try the spirits, whether they be of God;" for we are forbidden to "believe every spirit;" and how *can* we try the teaching of men, but by the Word of God through the teaching of the Holy Spirit? It is a fearful thing when we cannot contradict the arguments we hear, though we may feel them new, extraordinary, or wrong. It is a fearful thing when God's own Word is brought before us by Satan, as he tempted the Holy One of God; and yet that we cannot confound him by the *spiritual* application of it, as did He "who was tempted like as we are!" This is the grievous cause of the many departures from the truth we see around us.

Mr. Grosvenor was fond of company and cards. He liked little tea-drinkings and rubbers; and, as he was grown old and disinclined to more active pursuits, he used to amuse himself more in visiting and being visited than Mrs. Grosvenor began to relish. She had ever been inclined to jealousy; she knew her husband of yore, and age did not diminish her affection or her fears. Her temper was sharp, her retorts biting, and disagreeables ensued. Mr. Grosvenor, when he found the uneasiness of his poor little wife, delighted to exasperate and torment her; and miserable indeed became the heart that had been so quiet and happy among the rocks and retirement of South Wales!

Mr. Grosvenor, too, became parsimonious in his prosperity. He began to starve his wife and himself, too, by slow but increasing degrees; and her distressing situation, at last, became no secret to the person with whom they lodged, and who was a kind, stout-hearted, shrewd woman, with a character that kept Mr. Grosvenor somewhat in check, although he regarded her highly. Mrs. Griffiths felt deeply for poor Mrs. Grosvenor; she saw and understood her vexations, and did all she could to comfort and cheer her. It was a real relief to her to slip down into the kitchen, when her husband was busy, or from home, or get her kind landlady up into the parlour, to take snuff together, and have a few minutes' chat; for her own equals had become obnoxious to her, as objects of her husband's attentions, and, of course, she could possess no sympathies with them. Alas! alas! when people marry unadvisedly, where do the consequences end? In my next paper the scene will close more darkly still. Let the young ponder, pause, and *pray*, before they go and do what can never be undone.

(To be continued.)

THE POTATO DISEASE.

PERCEIVING in No. 381 of THE COTTAGE GARDENER an article upon the Potato Murrain, wherein the writer solicits the opinion of other cultivators of this useful esculent, as to whether this mysterious disease is influenced by frost, or whether frost is the cause of it; now, the opinions as to the origin and cause of this malady have been so numerous, and the cures suggested so various, one would fancy the subject to be exhausted, consequently, unnecessary on my part to offer any further remarks; but so long as the Potato is liable to this disease, or until we find another vegetable of a like nature to supersede it, the subject will be open to public discussion. After every nook and cranny of it has been explored, and every possible remedy prescribed by the Potato-eating millions, it is still without any decisive result; but, doubtless, there is a cause, or a combination of causes, and these may be more readily observed than is generally supposed. In this scientific age we are apt to overlook the simple working of nature, and seek for the explanation of certain results from the abstruse logic of some famed *savant*, which, however valuable in itself, is not always the most direct route to a favourable termination. The importance of investigating this subject must be evident to every philanthropic person; for if we could possibly thereby provide the public with a daily supply of this general favourite, we should, doubtless, confer a valuable boon upon society in these expensive times.

In this, as in every other Providential visitation of a like

nature, whether upon man, or those subjects from whence he derives his sustenance, we often find God's hand mercifully extended to rescue us from impending ruin, verifying the assertion of the poet, that

"Beneath a frowning Providence
He hides a smiling face."

In this case, as in that of cholera, I believe it will ultimately prove a blessing instead of a curse, although, doubtless, there is a chastisement connected with it. Who can question but the latter will be the means of extensive sanitary improvements? In like manner, who can deny but the other will, in the end, prove a benefactor, by stimulating us to greater exertion, and rewarding us with a more abundant supply of food?—which I will endeavour presently to show. I doubt not but there are numbers of your numerous readers who have arrived at the same conclusion as myself, consequently, their mode of cultivation is in accordance with the suggestions of nature; I beg to say it is not for these I write, but for those only who have failed to procure the desired return for their labour. It will be needless for me to repeat the statement of your correspondent, "B.;" suffice it to say, that it fully confirms my previous opinion, that the Potato disease is caused by a fluctuating humid atmosphere, combined with certain local conditions: and as the disease shows decided symptoms of being cryptogamic, feeding upon the juices of the plant (as may be seen in other vegetable productions), in proportion as the above agents are favourable to its production, shall we see corresponding results. The period of its commencement is too well known to require repetition here; but, as your correspondent very justly observed, it generally commences with sudden atmospheric changes, which appear peculiarly favourable to its germination.

Your correspondent asks, if the instance which he gives was the effect of frost, or, in other words, the producing agent. My opinion is, that it was *not* the effect of frost, but rather that there was the germ or productive agent at work previous to it, and the frost only assisted its development. Your correspondent also asks, if these facts do not point to a certain direction? Decidedly they do; and that direction is shown in one word—"early." Again; if they do not appear to indicate a certain conclusion? It is shown by the same word—"early." Early plant and early rise, is a motto which indicates the restoration of the potato.

I have previously stated that this disease, in all probability, will ultimately prove a blessing. Now, I will endeavour to prove in what way this may be accomplished to a certain extent. This valuable vegetable production is alike valuable to rich and poor; and as the latter are consumers, so are they also producers: and in order to enable them to become so, in most rural districts there are cottage gardens, which they are enabled to hire at a reasonable rent for the cultivation of this and other vegetable productions.

Before proposing any plan for the improvement of these allotments, it will be necessary to take a brief survey how they are generally cultivated, in too many instances, at least, in Essex. I will commence with January and February. During these months scarcely anything is done. March and April finds them all bustle and confusion in preparing the ground for planting—indeed, if you can call it a preparation; and, in the majority of cases, not dreaming of planting before the latter part of March and April; and if all is finished by May-day they imagine they have done well. Now, this produces the very kind of vegetation, being of a soft, succulent nature, the least capable of resisting the attacks of this fungus; consequently, when disease takes place all remuneration for labour is gone. This stops all further exertion to repair the past; the ground is left the remainder of the year too often occupied by weeds, presenting an aspect little inferior to an Australian Wild. I do not mean to aver there are no exceptions; but I do mean to say the above description predominates. Now, what will remedy this evil? Why, nothing more than common sense will suggest, and what, as I before stated, I doubt not but many of your numerous readers have practised; at all events, if they have not done so, they have made bad use of THE COTTAGE GARDENER. The remedy, in my mind's eye, is the following:—During the winter months embrace every opportunity to cultivate the soil by manuring, digging, trenching, and otherwise exposing its surface to the action

of the atmospheric elements. Have everything in readiness for planting by the middle of February and beginning of March—the earlier the better, taking care to use *early productive varieties*, as there are plenty of this description in the market. Continue the necessary routine of duties towards them by surface-stirring, hoeing, moulding, &c., until the middle of July, when keep a strict look-out for "breakers a-head." At the very first indication of disease (which may be easily distinguished from the ordinary injuries received from wind, &c., by the peculiar blotchy appearance), take up, if possible, if not, pull up or cut off the haulm. If the above plan has been adopted, by the end of July they will be approaching maturity; and if the disease shows itself, no harm will ensue from the lifting. Before taking leave of this part of the subject, it may be desirable to state that it has been questioned, by some, if Potatoes taken up at that season or the early part of August are not impaired in quality. I beg to state it is a practice I have followed during six years, and have always found them keep as well as those taken up in September or October. I have some, at this present time, taken up the first week in August, quite as sound as others taken up in October, with this difference—those lifted in August were perfectly sound when lifted, and have continued so; whilst of those lifted in October, nearly three-parts were unfit for table. The inference must be obvious to every impartial investigator of the subject.

But to return from this digression: after storing away the crop, immediately fork or dig the ground; and having previously prepared a plot of *Cabbage-plants* by sowing the seed in May, plant a portion of the ground with these; sow another portion with the early *Stone Turnip*, or kindred varieties. Small portions may also be sown with *Spinach*, *Radish*, and *Onion*, which will be very acceptable, during autumn and winter, to a family. Have the greater part of the ground cleared during November and December, ready for preparing for the ensuing crop, which it will be well to change, as far as practicable, every season, for the purpose of benefiting the soil by a proper routine of cropping.

I will give an illustration by my own practice this season. The *Brussels Sprouts* which now supply my employer's table are grown on the same portion of ground from which, in August, I lifted a portion of my Potatoes, averaging about three bushels per rod. (I may mention here, that these I planted between the rows of Potatoes about a fortnight before they were lifted.) The *Savoy*s I have been using have been treated in the same way. The *Turnips* I am using were sown upon Potato ground; and the *Peas* and *Kidney Beans*, which supplied the same table in October and November, were grown upon the same soil from which I took my *Ash-leaf* and *Walnut-leaf* Potatoes, which are in daily use now.

Here is nothing extraordinary—no more than has been accomplished by others as well as myself, and can be accomplished again; the only wonder is that it is not more generally adopted. As it is natural for the poor to look to their superiors for instruction in the way to progress, I think it is the imperative duty of those who have knowledge to impart it to their less instructed and poorer brethren; and as our Agricultural Societies are doing much to raise the labouring classes in society, I also think they would do well to encourage the proper management of cottage allotments. I am aware the subject is not exhausted by the preceding brief observations; but I trust there are others of your readers who will circulate their experience through the medium of THE COTTAGE GARDENER; as I am sure anything that may throw light upon so important a matter will be appreciated by the public. In the meantime, if what has here been stated is worthy of notice, it is at your service.—S. ARNEY, *Saling Grove*.

P.S.—"B.'s" observations respecting the *Fluke Kidney* apply precisely to my own case. They are the worst I have this season. I fear their late growth will always render them liable to the disease, notwithstanding what has been said to the contrary.

FRUIT-TREES IN POTS.

I HAVE seen a collection of Fuchsias, healthy, and in full flower, growing in Cob-nut shells, and covered with a bell-glass.

I thought it a very pretty toy, and so the grower appeared to do; still, he did not hold forth the system as the *par excellence* of Fuchsia culture.

I have also seen a collection of fruit-trees growing in garden pots, bearing fruit, and covered with a glass roof. I also thought this a very pretty toy on a somewhat large scale, and I doubted not that it would be exceedingly interesting and amusing to a gentlemen or lady who might have sufficient leisure and inclination to play with it.

But such a toy, I thought would be sadly too expensive, and of very little real use to a practical gardener, who is expected to furnish an abundant annual supply of fruit to his employer's table; nor yet to a market-gardener, who has rent and taxes, &c., to pay; for it must be recollected, that if no heating apparatus be employed, the produce of the potted trees will be ripe much about the same time as fruit of the same sorts on the open wall, and, consequently, at the lowest value.

So, in my humble opinion (unless some special cause exists for doing so), it is evidently a decided step in the *wrong direction* to confine a collection of hardy fruit-trees in garden pots, or boxes, when it is evident that far more satisfactory results could be obtained by the common, or planting-out system.

That good fruit has been obtained from trees growing in pots, I am by no means inclined to dispute; but, at the same time, I feel satisfied that, all other circumstances being alike, better quality and greater quantity would have been obtained from the same trees had they been planted out. The same rule will, I think, apply to all fruit; for although the Pine-Apple has been very successfully grown in pots, still, I believe, few gardeners who have had an opportunity of giving the planting-out and pot system a fair trial but will prefer the former.

Mr. Robson's excellent article, entitled "Fruit-trees planted out *versus* in pots," must, I imagine, in a great measure, shake the confidence of the enthusiastic advocates of the pot system.

An intelligent gardener, in my neighbourhood, at present contemplates erecting what will deserve the name of an "Orchard-house;" that is, simply to enclose a square, or oblong-square, piece of ground, say half-a-rood, more or less, with a wall eight or ten feet high, and cover the square so enclosed with a glass roof on the ridge-and-furrow principle. This he supposes he can do at a comparatively moderate outlay. He will then plant it with dwarf fruit-trees of various sorts, and, at the same time, reserve a portion of the ground for early vegetables. But as I know him to be a reader of THE COTTAGE GARDENER, should this meet his eye, he may possibly be induced to give you his ideas on the subject.—ZEPHYRUS.

REVELATIONS FROM BABYLON.

(Continued from Vol. XIV. page 457.)

"EARLY in the ninth century B.C., the Assyrians did not come in direct contact with the Jews, though they overran the whole country as far south as Damascus, and even exacted tribute from the maritime cities of Phœnicia. The succeeding king, *Silima-rish*, fought several battles with Ben Hadad, and after the dethronement of the latter, with the usurper Hazael, while he also received rich presents from Jehu, who is called in the inscription the son of Omri, from having sat on the throne of Samaria. The annals of the next king, *Shamasphul*, extended but to four years, during which the wars of the Assyrians were confined to Asia Minor and Babylonia, and of his successor, *Phulukh* (the *Pul* of Scripture and *Phalok* of the LXX), no strictly historical record had been yet found. The interesting fact, however, had been discovered, that this king had

married a foreign princess of the name of *Sammuramit* (or *Semiramis*) and that having lost his throne by a domestic revolution to a stranger of the name of *Tiglath-Pileser* (the second), the upper royal line of Assyria, after a dynastic rule of 526 years, terminated in his person, all this minutely agreeing with the fragments of Assyrian history preserved to us by the Greeks. From the death or dethronement of *Pul* commenced the second or lower Assyrian line, the epoch being marked in Babylonian history as the era of *Nabonassor*, and dating from B.C. 774. Of *Tiglath-Pileser*, the first king of the lower dynasty, annals had been found extending to his 17th year, and among his tributaries were many names which were of interest from Scriptural associations, such as *Menahem* of Samaria, *Rezin* of Damascus, *Hiram* of Tyre, the King of *Byblos*, of *Casias*, of *Carchemish*, of *Hamoth*, and even a Queen of the Arabs, who seemed to have reigned in *Idumea*, or *Arabia Patrœa*, and who is the representative in regard to race and station of the famous Queen of *Sheba*, who had visited *Solomon* about two-and-a-half centuries before.

"According to Scripture history, *Tiglath-Pileser* must have been succeeded by *Shalmaneser*, a name which had not yet been found in the inscriptions, but which had originally headed, it was believed, certain mutilated tables, recording the wars of an Assyrian monarch with *Hosea* (?) king of Samaria, and with a son of *Rezin* of Damascus. It seemed probable that as *Tiglath-Pileser II.* had defaced the monuments of *Pul*, whom he supplanted, so *Sargon*, who was again of a different lineage and who gained the throne of *Nineveh* in B.C. 721, had designedly mutilated the records of *Tiglath-Pileser* and *Shalmaneser*, who were his two immediate predecessors, no single slab belonging to these kings having been ever found, either in a perfect state or in its original position. The explanation offered of this period of history was that *Shalmaneser* had succeeded his father, *Tiglath-Pileser*, on the throne of *Nineveh* about B.C. 728,—that he laid siege to Samaria in 724-23, and while engaged in that operation was surprised by the revolt of *Sargon*, who ultimately drove him from power and established himself in his place in B.C. 721. *Sargon's* first act was to bring the siege of Samaria to a close, and the account of the Samaritan captivity given in the inscription correspond closely with that preserved in Scripture, *Halah*, *Habor*, indeed, and the river of *Gozan*, where the expatriated tribe were placed, and which had been so variously identified by geographers, were proved by the inscriptions to be represented by the modern *Nimrud*, and by the two rivers, the *Khaboor* and the *Mygdouius*, the latter Greek term being a mere participial formation of *Gozan*, which was the original Assyrian name of the city of *Nisibin*. The annals of *Sargon* were preserved in great detail, and were replete with notices of much historical interest. His wars with *Merodach Baladan*, the king of Babylon, with the kings of *Ashdod*, of *Gaza*, of *Hamath*, of *Carchemish*, and of many other Syrian kings, were described. He received tribute from *Pharaoh* of Egypt, from the Queen of the Arabs and her confederate the Chief of *Sheba* (or the *Sabeans*, who at that time dwelt in *Edom*). There was distinct account, moreover, of the expedition to Cyprus (which was referred by the Greeks to *Shalmaneser*); and *Sargon's* memorial tablet had been discovered in the island. The history of Western Asia, indeed, at the close of the eighth century B.C., was given in the most elaborate detail in the inscriptions of *Korsabad*, which was *Sargon's* capital, and in every respect was found to coincide with the contemporary annals of the Jews. Verifications of still more importance had followed from the discovery of the annals of *Sennacherib*, who succeeded his father *Sargon* in 702. His wars with *Illucœus* of *Sidon*, and with *Merodach Baladan* and his sons, were in near accordance with the notices of the Greeks, and the famous Assyrian expedition, which *Sennacherib* led against *Hezekiah* of Jerusalem, as given in the native annals, coincided in all essential points (even to the numbers of the thirty talents of gold which the Jewish king paid as a peace-offering) with the Scriptural record of the event. It was not to be expected that the monarch of Assyria would deliberately chronicle his discomfiture under the walls of Jerusalem and his disastrous retreat to *Nineveh*; but there was the significant admission in his annals that he did not succeed in capturing the Jewish capital, and this

was sufficient to attest the interposition of a miraculous power.

"The annals, again, of Esar Haddon, who ascended the throne on the death of his father, in about B.C. 680, were of almost equal interest. He warred in Phœnicia, in Syria, in Asia Minor, and Armenia, in Media, in Susiana, and in Babylonia. He sent a Queen from his own household to rule over the Arabs of Edom. He must have led a great expedition into Africa, for he assumed the distinctive title of 'Conqueror of Egypt and Æthiopia.' Finally he obtained the aid of Manasseh, King of Judea, together with that of most of the other kings of Syria, in constructing a magnificent palace at Sealah, of which building the ruins are still to be seen at the south-west corner of the great mound of Nimrud.

"The son of Esar Haddon, who was named *Ashur-bani-bal*, but who was almost unknown to the Greeks, had left numerous monuments and of great value. Mr. Layard had excavated, some years ago, a portion of one of this king's palaces at Nineveh, but recently a far more perfect and more highly finished building of the same kind had been discovered in another part of the mound of *Koyunjik*. The sculptures in this palace were of the very highest class of Assyrian art. The hunting scenes, indeed, represented on the walls of some of the chambers were perfectly beautiful, both in design and execution, and a very large selection of these had been made for the Assyrian Gallery in the British Museum. In illustration of this branch of the subject some figures of dogs in "terra cotta" were exhibited, which had been discovered in a cavity of the wall on removing the slabs which formed the wainscoting. They were models apparently of the favourite lion-hounds of the king, the figures being painted of different colours, and having other distinctive marks, while the name of each dog, generally a descriptive epithet, had been stamped or incised upon the clay.

"The most valuable relics, however, of the time of *Ashur-bani-bal*, were stated to be the inscribed clay tablets of baked clay forming portions of the royal library. The number of these tablets already exhumed could not be less than 10,000, and they appeared to embrace every branch of science known to the ancient Assyrians. They were especially valuable in affording explanations of the Assyrian system of writing, one class of them, unfortunately rarely met with, but of which a specimen was exhibited at the table, showing how the original pictorial figures had been degraded to characters, while others contained tables expressing the different syllable values which were attached to each character, and a third class again presented elaborate lists of all the simple and compound ideographs of the language, with their phonetic equivalents. Even with the important help of these explanatory tables, the work of decipherment had proceeded slowly, and many difficulties still remained to be overcome; but without their aid, it was observed, the inscriptions would have continued to the present time to be for the most part unintelligible.

"It was now left for Col. Rawlinson to refer to the Babylonian period of history, and to invite the meeting to examine the highly important and original relics of this period, which were laid out upon the table. The last king of Nineveh, *Asshur-ubid-iltu*, of whom nothing remained but a few bricks with half-obliterated legends, had been probably dispossessed of his throne by the united armies of the Medes and Babylonians in about B.C. 625. Nabopolassar, who either sent or led the expedition against Nineveh, became from this period the lord paramount of Western Asia. The seat of his empire was at Babylon, which he strengthened and partially rebuilt. Many tablets had been found dating from different periods of his reign, but there was no autographic record, either of his domestic works or of his foreign conquests. It was to his son Nebuchadnezzar, who succeeded him in B.C. 606, and who reigned for forty-four years, that most of the Babylonian relics belonged, which now filled the museums of Europe. A very interesting discovery has been recently made in regard to a building erected by this monarch, the particulars of which were described as follows:—

"A remarkable ruin, named *Birs Nimrud*, and situated on a mound in the vicinity of Babylon, had long been an object of curiosity to all travellers and antiquaries. The great

height of the mound, its prodigious extent, and its state of tolerable preservation, contrasting so favourably with the shapeless heaps in the neighbourhood, had very generally suggested the identity of the ruin with the temple of Belus, so minutely described by Herodotus, and as there were large vitrified masses of brickwork on the summit of the mound, which presented the appearance of having been subjected to the influence of intense heat, conjectures that the *Birs* might even represent the ruin of the tower of Babel, destroyed by lightning from heaven, had been not unfrequently hazarded and believed. To resolve the many interesting questions connected with this ruin, Colonel Rawlinson undertook, last autumn, its systematic examination. Experimental trenches were opened in vertical lines from the summit to the base, and wherever walls were met with they were laid bare by horizontal galleries being run along them. After two months of preliminary excavation, Colonel Rawlinson visited the works, and, profiting by the experience acquired in his previous researches, he was able in the course of half-an-hour's examination to detect the spots where the commemorative records were deposited, and to extract, to the utter astonishment of the Arabs, from concealed cavities in the walls, the two large inscribed cylinders of baked clay which were exhibited to the meeting, and which were now in as fine a state of preservation as when they were deposited in their hiding place by Nebuchadnezzar above twenty-five centuries ago. From these cylinders it appeared that the temple had been originally built by the king *Merodach-adakhi* at the close of the twelfth century B.C., and probably in celebration of his victory over Tiglath-Pileser I.; that it had subsequently fallen into ruin, and had been in consequence subjected to a thorough repair by Nebuchadnezzar in about B.C. 580. The curious fact was further elicited, that it was named the 'Temple of the Seven Spheres,' and that it had been laid out in conformity with the Chaldean planetary system, seven stages being erected, one above the other, according to the order of the seven planets, and their stages being coloured after the hue of the planets to which they were respectively dedicated. Thus the lower stage belonging to Saturn was black; the second sacred to Jupiter was orange; the third or that of Mars was red; the fourth of the Sun, golden; the fifth of Venus, white; the sixth of Mercury, blue; and the seventh of the Moon, a silvery green. In several cases these colours were still clearly to be distinguished, the appropriate hue being obtained by the quality and burning of the bricks, and it was thus ascertained that the vitrified masses at the summit were the result of design and not of accident—the sixth stage sacred to Mercury having been subjected to an intense and prolonged fire, in order to produce the blue slag colour, which was emblematic of that planet. It further appeared, that we were indebted to this peculiarity of construction for the preservation of the monument, when so many of its sister temples had utterly perished; the blue slag cap at the summit of the pile resisting the action of the weather, and holding together the lower stages, which would otherwise have crumbled, while it also afforded an immoveable pedestal for the upper stage, and for the shrine which probably crowned the pile. The only other point of interest which was ascertained from the cylinders was that the temple in question did not belong to Babylon, but to the neighbouring city of Borsippa, the title of *Birs*, by which it is now known, being a mere abbreviation of the ancient name of the city.

"Colonel Rawlinson now adverted to the famous slab of Nebuchadnezzar which is deposited in the Museum of the India House; and he stated that it contained a description of the various works executed by Nebuchadnezzar at Babylon and Borsippa, which so nearly corresponded with the account of Berosus quoted by Josephus, that it would hardly be doubted the Chaldean historian had consulted the original autographic record; and here was introduced the notice of a most remarkable passage of the India House inscription, which seemed to contain the official version adopted by the king, of that terrible calamity that overtook him in the midst of his career. Abruptly breaking off from the narrative of the architectural decoration of Babylon, the inscription denounced the Chaldean astrologers; the king's heart was hardened against them; he would grant no benefactions for religious purposes; he intermitted the worship of Merodach, and put an end to the sacrifice of victims; he

laboured under the effects of enchantment(?). There is much that is extremely obscure in this episodic fragment, but it really seemed to allude to the temporary insanity of the monarch, and at its close, when the spell was broken, which had been cast over him, the thread of the argument, having reference to the building of Babylon, was resumed. There was a passing allusion in this inscription to the Western conquests of Nebuchadnezzar, and in an amplified copy upon a clay cylinder, of which a fragment had also been found at the *Birs*, the subjugation of the countries on the Mediterranean was specifically mentioned; but hitherto annals of the Babylonian monarchs, similar to those which were so carefully prepared in Assyria, had in no instance been discovered, and an independent account thereof of the capture of Jerusalem and the carrying away the Jews into captivity was still among the desiderata of cuneiform science.

"After a brief notice of Nebuchadnezzar's successors, *Evil Merodach* and *Nergal-shar-ezer* (Neriglissor of the Greeks), Col. Rawlinson proceeded to explain his last discovery of importance, which established the fact of the eldest son of Nabonidus having been named *Bel-shar-ezer*, and that pointed the way to the reconciliation of profane and sacred history in regard to the capture of Babylon by Cyrus. Relics of Nabonidus, the last king of Babylon, abounded, not only at Babylon and Borsippa, but in Chaldea also. From the ruins of a temple to 'the Moon,' which had been recently excavated at 'Ur of the Chaldees,' four perfect cylinders of this kind had been recovered, which were now placed on the table, together with the fragments of a hollow barrel cylinder of the same period. The latter relic contained a detailed account of the various works of Nabonidus throughout the empire, and was particularly valuable in mentioning the monarchs who founded and repaired the temples in the different capitals, and in establishing their chronological succession. The four smaller cylinders, which all bore the same inscription, referred particularly to the history of the temple of 'the Moon' at Ur of the Chaldees. In both legends the architectural description was finished with a special prayer and invocation for the welfare of the king's eldest son, *Bel-shar-ezer*; and as this substitution of the name of the king's son for that of the king himself was an isolated example, and totally at variance with the ancient usage, the only reasonable explanation seemed to be that *Bel-shar-ezer* (abbreviated in Daniel to *Belshazzar* as *Nergal-shar-ezer* was shortened by the Greeks to Neriglissor) had been raised by the king during his lifetime to a participation in the imperial dignity. On this supposition then—that there were two kings reigning at the same time in Babylon,—it could well be understood that Nabonidus, the father, may have met the Persians in the open field, and after his defeat, may have thrown himself into the stronghold of Borsippa as stated by Berosus; while Belshazzar, the son, may have awaited the attack of the enemy in Babylon, and have fallen under that awful visitation of the Divine vengeance which is described in the Book of Daniel. That the eldest son of Nabonidus, indeed, who is distinctly named *Bel-shar-ezer* in the cylinders of *Mugheir*, could not have survived the extinction of the empire, is rendered certain by the fact that when a revolt of the Babylonians took place at the commencement of the reign of Darius Hystaspes, the impostor who personated the heir to the kingdom and called his countrymen to arms, assumed the name of "*Nabukudruchur*, the son of Nabunit" (see inscription of Behistun), the rights of the eldest son having descended to the second. As the cylinders exhibited to the meeting were the only solitary documents on which the name of Belshazzar had been ever found, apart from the pages of Daniel, they were objects of special interest, and would no doubt be reckoned among the choicest treasures of the British Museum.

"Colonel Rawlinson had not at present in his charge any relics of a later period, though he stated that tablets dated during the reigns of the Achæmenian monarchs from Cyrus to Darius Coddomanus, were by no means rare, and that he had even recently examined a number of cuneiform documents, consisting of benefactions to temples, which were dated under the reigns of Seleucus and Antiochus.

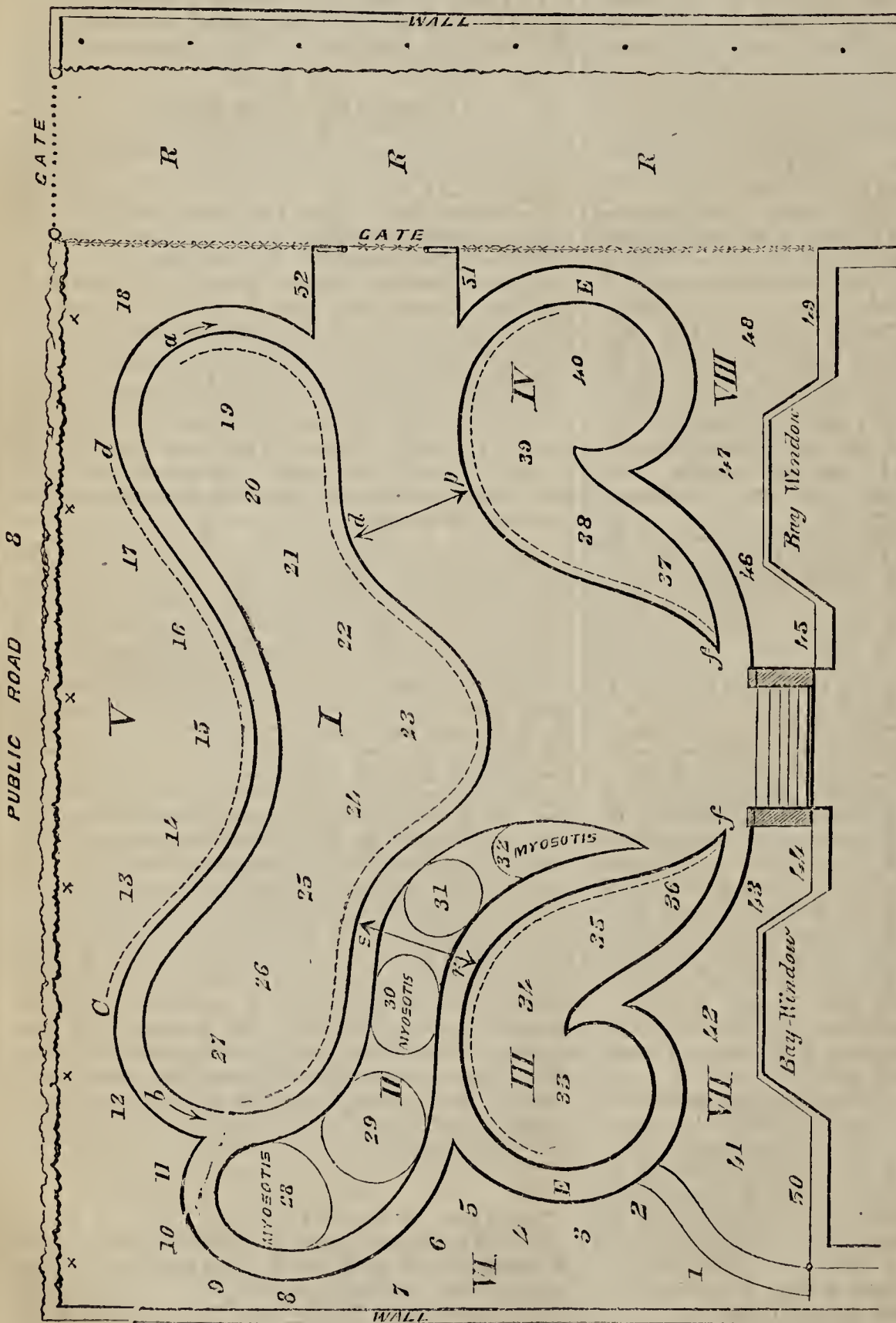
"Among the miscellaneous articles exhibited were a number of signet cylinders, which were commonly used by the Babylonians as seals to authenticate official documents. All

the benefaction tablets recently discovered were thus endorsed, having been impressed while the clay was soft. The legends, however, on the cylinders were of no consequence, merely consisting of the name of the owner, of that of his father, and of an epithet implying dependence on one of the numerous gods of the Pantheon. A black stone, bearing the symbols of the gods, and invoking their vengeance on any one who should alter or resume a certain grant of lands recorded in the document was also on the table. It was stated to be very similar to the relic usually known in Europe as 'le caillon de Michaud.' Another mutilated specimen of the same class, which was obtained from Babylon by Mr. Rich, being already in the British Museum, and being in fact the identical stone with which some years ago the famous Portland vase was dashed to pieces. The only other object of interest was a small cube of ivory, bearing on it certain mathematical tables, which were inscribed, however, in a character so minute, as to be almost invisible until examined with a strong magnifying glass; and it was suggested that from this specimen alone we might reasonably believe the Assyrians to have been in the habit of manufacturing lenses, and to have been thus considerably advanced in a knowledge of the science of optics!

"Colonel Rawlinson having been further requested by Dr. Wilson to say a few words on the subject of the language of the inscriptions and the mode of decipherment, explained that the first clue to the reading of the Assyrian character, was obtained from the autographic record of Darius Hystaspes at Behistun. As a translation in the Babylonian character and language, which already resembled the Assyrian, was appended to the original Persian adict at the latter place, the sense of the one being known, a sure basis was established for the analysis of the other. His comparison of the two versions of this inscription, and his preliminary researches into the grammar and etymological affinities of the language of ancient Babylon, had been published in the Journal of the Royal Asiatic Society some four years back, and as he had since that time studied and analysed many thousand inscriptions, not mere rock legends of a few lines restricted to the formula of royal proclamation, but long elaborate histories, records of the chase, architectural reports, scientific treatises, prayers, invocations, and the whole arcana of the Chaldee religion and philosophy, he might now really claim a very extended acquaintance with the language. In all essential points the Babylonian was a mere primitive Hebrew—the roots were the same,—the grammatical constructions perfectly analogous—the conjugations very similar—the names of objects for the most part identical. The radical difficulty in reading and understanding Babylonian and Assyrian lay in the extraordinary number of the characters employed (the phonetic signs alone exceed 300); in their variant powers, one character being often used to express six or seven different syllabic sounds; and above all, in the very general employment both of simple and compound ideographs, of which, although the meaning might be ascertained from the context, it was impossible to define the phonetic values without the aid of the explanatory tablets. From the latter source he had now succeeded in tabulating between 3000 and 4000 ideographs with their phonetic correspondents, but he did not consider this branch of the subject to be one-half exhausted. His own impression was that there was at least 20,000 ideographs in common use, and he considered that until these were all determinately explained and read, no one could pretend to have thoroughly mastered the language."

RICE PAPER.—Every one is acquainted with this delicate and pearly tissue, but very few know that it is manufactured, in China, from a plant called *Aralia papyrifera* (Paper-bearing Aralia). The pith of the plant, which pith is very abundant, is the part employed for the manufacture of the paper. The Chinese call the plant *Tung-tsaou*, and it was found by Mr. Fortune growing in the Island of Formosa, and a figure of it is just published in the *Botanical Magazine*, t. 4897. The consumption of this paper in China is very large, 100 sheets of it, each three inches square, are sold for five farthings. The large sheets used by the Chinese flower painters are three-halfpence per sheet.

Where there are mere dots, Lime-trees, and crimson, pink, and white Thorns are planted, alternately, with single and double Hollyhocks between.



LIST OF ROSES, Standards, unless specified to the contrary. Those marked * flower well (here) in the autumn.

- | | | | | | |
|-------------------------------|----------------------------------------------------|------------------------------|-----------------------------|-------------------------------------------------------|-------------|
| 1. Pio Nono. | 21. Leonore d'Este. | 29. Mrs. Bosanquet.* | 38. Abricote. | 47. Dr. Mara.* | Mme Rivers. |
| 2. Baronne Prevost. | 22. Marianne.* | 30. | 39. Géant des Batailles. | 48. Desgaches. | |
| 3. Madame Trudeaux.* | 23. Prosperine.* | 31. Souvenir de Malmaison.* | 40. Marquise Bocella. | 49. & 50. Climbers trained on wire-work against wall. | |
| 4. Madame Rivers. | so late as the 5th Dec., 1855. Flowers fully open. | 32. General Castellane.* | 41. Marquise d'Ailsa. | 51. & 52. Prairie Roses. Baltimore Belle & Caradori | |
| 5. Aubernon.* | 24. Edouard Desfosse.* | 33. William Griffiths.* | 42. Robin Hood & Acidalie.* | Allen. | |
| 6. Laure Raymond.* | 25. L'Enfant de MontCarmel | 34. Géant des Batailles. | 43. Unknown. Half-standard | **** Pillar Roses, red and white alternately. | |
| 7. Géant des Batailles.* | 26. | 35. Queen of the Bourbons. | 44. Lamarque. | | |
| 8. Pierre de St. Cyr. Dwarf.* | 27. Marquise Bocella.* | 36. Prince Leon. Dwarf. | 45. Jaune Desprez. | | |
| 9. Charles Duval. | 28. Standard of Marengo.* | 37. Gen. Jacqueminot. Dwarf. | 46. Unknown. Half-standard | | |
| 10. Caroline de Sausal. | | | | | |

FLOWER-GARDEN PLAN.

I AM very glad to see you commence a series of papers on "Gardening for the Many," applicable to the flower-garden. I hope to benefit by them; and, in the meantime, as I was the cause of your entering upon the course of papers which you have already published under that head, with respect to the kitchen-garden; and as I am aware that the small space which my flower-garden occupies (twelve yards by thirteen yards) renders it impossible that you should, in any respect, take it for the ground-work of your instructions, yet, as it is considered by my neighbours here, both amateur and professional, to be managed with some degree of success, a few words respecting the place and process of managing it may be admissible into your columns as an introduction to your more extended remarks.

I may observe, as an apology for troubling you, that I am encouraged to do so from finding many points of similarity between the planting of my garden (at least, the most prominent parts of it,) and the mixed bed, which you described and praised some weeks since.

First, however, let me observe, that from the condition of these premises when I took possession, it was, I may say, impossible to lay the ground out quite symmetrically. The road marked R.R. in the plan was formed; at the same time, I did pay as much attention to symmetry as I could, for the line *p—d*, which is the width of the indispensable approach to the house-door, is exactly equal to the line *r—s*; and the bed No. II. is introduced, only to occupy a portion of what would otherwise have been bare gravel.

Next, let me observe, that I hardly call this little bit of ground a garden. I endeavour to treat it as a bouquet, to be looked upon from the bay-windows of the library and drawing-room; and my object, therefore, is to have it as continuously and completely a mass of flowers as my ingenuity can devise.

From several remarks in the pages of THE COTTAGE GARDENER, I gather that you do not much approve of standard Roses. I like them in that form; but my main reason for growing them almost exclusively in that shape is, that, whatever disadvantages may or may not attach to them, they have the, to me, very great recommendation, that they leave the surface of the beds free for other low-growing flowers. If I had dwarf Roses, they would occupy exclusively so many square feet; by growing standards only, and climbers, I almost get my Roses in addition to whatever else I grow.

I now proceed to details. Premising first, however, that I have made an alteration in the shape of one bed since you first noticed my little plot, which is (in reality, however it may appear in the diagram,) a decided improvement; and that the figures which mark each bed are those which you first affixed to them (Roman instead of Arabic).

The diagram shows, in the first place, the distribution of the standard and climbing Roses. In the list of names which I append, I have marked with a * those which I have found to flower best in the autumn; and I may take this opportunity of observing, that "autumnal flowering" is a recommendation, outweighing with me every other; nay, even every defect; and that, in time, my collection will consist almost exclusively of such Roses as I find, by experience, produce in this part of the country (York) a second crop of flowers.

At the foot of each standard Rose is planted a Carnation, Picotee, or Anna Boleyn Pink; or else, in the summer, a Petunia, or other plant of similar habit.

In bed No. I. the front outline is marked from *a* to *b* by a double row of Crocuses next to the Box. Large Yellow Dutch in front, David Ritzio (Purple) behind. This line is taken up in bed No. V., at *e*, and carried on to *d*, by Cloth of Gold (Yellow) and Sir Walter Scott

(Striped). No. III. and IV. have, from *e* to *f*, Large Yellow Dutch in front, and in No. III. Queen Victoria (White), in No. IV. Royal Mantle (a bright Primrose Lilac), as the second row. I find from my register that the Yellow Crocuses come into flower a full week before the others, consequently, these double lines present three phases—a yellow line, a mixed one, and a purple, white, or lilac one, during the three weeks or month the whole tribe of Crocuses are in flower.

In beds I. III. V., next to the Crocuses, are Hyacinths, which begin to flower just as the Crocuses are fading; and between the Hyacinths will be planted, early in the spring, Erysimum Marshalli and E. alpinum, which will be in bloom soon after the Hyacinths are over. In the intervals between the Hyacinths, but in advance, are Auriculas; and behind the Hyacinths again, but not so close together, a line of Polyanthus Narcissus and Jonquils; and along the centre of the beds, patches of Tulips and Gladiolus alternately (not expected, of course, to flower at the same time).

In the outside beds, VI. VII. VIII., the Crocuses are planted in detached patches of various kinds. Polyanthuses generally take the place of Auriculas, and White Perennial Candytuft is mixed with the Erysimums. In bed No. VI. a row of Hollyhocks occupies the space next the wall, and in this bed, and No. V., Dahlias are introduced as the season advances. In every interval of all the beds, Geraniums, Fuschias, Cinerarias, &c., as well as Stocks, German Wallflowers, China Asters, Zinnias, Phlox Drummondii, and other Annuals, are introduced wherever space can be found throughout the summer and autumn.

No. II. has, at present, at each end and in the centre, groups of the common British Myosotis sylvatica, which, from the middle of April to the end of June, will be masses of bright azure. There is also a white variety, which flowers equally well; but I am not partial to white flowers in early spring. When the Myosotis begins to fade, the plants are removed to a place kept for them under a north wall, and the spaces filled with Verbenas, or whatever else may be available. Last year this bed was a mass of Phlox Drummondii. Between the circles of Myosotis are Anemones and Ranunculus.

It is unnecessary to specify the biennials and hardy herbaceous perennials which are common to all gardens. I have only endeavoured to sketch the lines, which are introduced with a view to particular effect, and which are intended to strike the eye amongst the miscellaneous flowering plants which fill the beds.

Later on in the season I endeavour to have a mass of bloom covering the ground, or nearly so; and although this may not be so effective as the bedding system, it must be remembered that it is capable of being made more easily continuous, and that the bedding system requires a larger amount of glass, either houses or frames, than every body can command; and I may, perhaps, be permitted to say, that I do not often see a garden which presents a gayer coup d'œil than mine presents on a fine summer's day.—Quis.

P.S. I have three or four vacancies for Roses this spring. Can you recommend me some not in my list, as really good autumn flowers?

N.B. My diagram makes the beds III. and IV. more stumpy than they are in reality; they are more like No. 3 in your sketch, page 456, No. 337.

[Beginning with the list of Roses, the first thing which strikes us is, that No. 2, Baronne Prevost, one of the finest and best of perpetuals, does not flower in the autumn; while Mrs. Elliot, No. 17, does so, although it and Pio Nono often refuse to bloom in the autumn till they are old plants and their vigour begin to languish. Madame Rivers is also apt to run too much to wood, and not to bloom in the autumn, until its strength is worn out a little by age. Lamarque and Jaune Desprez are in the

best situations, as they ought and require. The *Prairie* Roses, 51 and 52, will hardly bloom at the entrance-gate unless the place is much sheltered, with a dry bottom, which it probably is; else, No 23 would hardly bloom so late in that open situation, the true *Proserpine* being rather a delicate Rose. Altogether, we should think the effect of so many Roses planted in such a manner would be exceedingly good, and the different arrangements for the various classes seem, from the plan, to have been well considered; this mode of backing with pillar Roses seems well worth imitating in such situations.]

HOLCUS SACCHARATUS,

THE NEW CHINESE SUGAR-CANE.

THIS vegetable, which was brought under notice at the same time as the *Dioscorea Japonica*, or the New Chinese Yam, seems to be much more worthy of attention than that plant. It is easy of culture, and gives a larger amount of green produce than any other cereal which I have had an opportunity of cultivating or examining. A few plants, which were raised from seeds sown late last spring, were planted in a small patch of ground, and produced from three to seven stems each, the stems having from eight to ten leaves upon them, varying from three to five feet in length. From the fact that the seed was sown late, the plants had not, as a matter of course, the same chance of a large development of foliage as if they had had a longer period of growth. I do not consider that it will ever prove to be more than an annual plant, as, judging from a specimen I have just examined, it does not form an amount of root corresponding with the top, neither do the roots appear to be so composed as to possess the power of resisting the decay which is the attendant and attribute of our very moist autumn and winter months on very many vegetables and plants.

Respecting the feeding and nutritious qualities of this cane much may be said. The only question I would raise, as to its utility as an agricultural crop, is, Will it ever answer the farmer's purpose to employ or use the gardener's skill in raising the young plants previous to planting them out? It cannot be raised or grown with less care than "Cobbett's Corn," and few persons who commenced the cultivation of that have continued it, owing to the irregularity of the weather in busy seasons superinducing that want of steady care which the young plants require. We, as gardeners, say, "Oh! it is only —." The farmers reply, "Take the 'only' out, if you please, and we might manage then." These two plants may, with much judgment, be placed on the same footing, and viewed in the same light, as to their utility; whilst their merits may be weighed in the same scales, without much fear that they would out-balance one another. They are both valuable as "green food."

I have just written—"Much may be said with reference to the feeding and nutritious qualities of this plant." I will cite three instances in corroboration of what I have advanced, which may serve as the texts for three hundred more. I took a bundle of the stems, and cutting them into lengths of from eight inches to a foot long, I threw them into the manger of a stall where a horse was standing. "Tom," as the proprietor chooses to call his steed, looked at them, blowed upon them, and seemed, at first, quite unwilling to have any thing to do with them; but, having retired for about an hour, I returned, and found that he had eaten them up, or, at least, I feel at liberty to suppose so, having tried the same experiment several times since, and it has required "no reflection" on Master Tom's part, ere he commenced the demolition of them—he has always eaten them greedily. The sap contains a large amount of saccharine juice, which I have frequently tasted by cutting the stem across and applying my tongue to it immediately. This very cogently confirms the supposition that it is nutritious not only for horses but also for horned cattle. Cows and heifers eat the leaves and stems greedily, and I entertain a strong conviction that the produce of the former would be much improved by being partially fed on them.

A very respectable Septuagenarian, who has been connected with the publication of a floricultural magazine for the

greater portion of his life, and which still bears his name, now resident here, stated, in a letter he published a short time since, "that swine will eat the leaves and stems of this plant raw in preference to other vegetable productions when cooked," he having placed the two descriptions of food before them at one and the same time, and thereby proved the experiment. As "Mr. Piggy" is a pretty good judge, when a choice of food is offered, in the selection of that which is most congenial to his appetite, another argument is thereby suggested for the recommendation of it to the attention of all who are fond of the cultivation of new introductions. I would do so under the impression that it may ultimately prove an acquisition of no mean pretensions for "green cropping."

Whether the amount of saccharine juices which the stems and leaves of this plant contain may render them useful for fattening cattle, is a feature in its composition which I should be glad to hear has been proved.

Viewing this plant in the light of an annual, its hardiness will, as a matter of course, be of very little importance. It will suffice, that we can raise it in early spring, plant the young plants out, and get a good produce from them; and it will serve all the purposes required of it. It is an oft-quoted saying, used by those who are as cautious as the apple-trees in spring, that "Time does many a tale unfold;" but I think, independent of that saying, this plant is worthy of trial, to test its value as an agricultural grass. It must not be coddled, and then condemned: it should be raised in a frame, with a little bottom-heat, planted out in rows, two feet by one, and kept carefully hoed up. If it succeeds, well and good; if it does not, let every man judge for himself as to the expediency of trying it again, having properly weighed circumstances and surrounding influences.—C. B. S., Jersey.

THE BRITISH LABOURER.

"If," says the editor of Johnson and Shaw's *Farmers Almanack* for 1856, p. 54, "you will refer back to p. 198, you will find the average amount of sickness amongst friendly societies, and that illness commonly takes away about 1-12th or 1-13th of the income of young workmen, and from 1-10th to 1-5th of those more advanced in life. This serious loss of wages may be very commonly reduced in amount by ordinary care; such as in selecting a dry, wholesome, cheerfully-placed cottage, supplied with good water. But when you have secured these, you will still be in danger of suffering in health, both yourself and your family, if you allow sewage or other sources of bad smells to remain about your cottage, or if you neglect personal cleanliness. Many diseases arise from these sources. There is no excuse for neglect in this way: the poorest person can be cleanly; water is commonly accessible to all. Avoid, then, dirt, damp and close rooms, and resting in damp clothes. That the ill effects of exposure to the weather (which are commonly aggravated by neglect) are not more prejudicial to health than inhabiting ill-ventilated and badly-drained rooms, you may perceive by the following table, which gives the average yearly number of day's illness of *sick* labourers of the classes which are exposed and not exposed to the weather" (*Finlaison, Rep. on Friendly Soc., Parl. Paper, 1853, No. 955, p. xviii*) :—

Age.	Light Labour.		Heavy Labour.	
	Exposed.	Not exposed.	Exposed.	Not exposed.
20.....	28.5	25.3	25.3	24.9
25.....	30.1	27.4	27.1	28.1
30.....	32.4	29.8	30.0	29.8
35.....	33.5	30.7	31.0	31.3
40.....	36.7	36.6	32.9	34.8
45.....	39.2	38.7	39.2	38.2
50.....	45.4	48.3	43.2	42.8
55.....	58.2	48.6	51.2	46.0
60.....	60.5	49.1	61.2	61.4
65.....	79.6	73.0	70.5	78.3

When we are thus quoting the advice of the editor of the valuable periodical to the labourer, let us not forget the master's shortcomings on this head.

At a recent meeting of the Herts Agricultural Society, held at Buntingford, the Rev. W. W. Malet, alluding to the condition of the agricultural labourer, spoke as follows:—

"I am rejoiced to see the committee are thus labouring for the good of our poorer brethren; it is a noble duty in a noble cause, and I would wish to see its labours in this respect still more extended. I see farmers are rewarded for having sheep, and cows, and pigs in good condition; I should like to see a prize offered to the farmer who would have his labouring men in the best condition (laughter and confusion). When our young men by hundreds joined the militia at Hertford, it was publicly remarked that they were low in flesh, but high in bone (laughter); they must have come from hard work, or no work and low food, or not such as men require in this climate; their uniform hung loosely on them, but in a month's time, by the care of their noble master, the colonel, seeing they had a regular supply of animal food, they filled out to their red coats—(laughter)—and when they came home on a Sunday to visit their friends, they were astonished at their improvement in condition (cheers). I say, then, we want some means of putting our labouring men, as well as our cattle and sheep, in better condition—they must be well-fed as well as the cattle and sheep—it behoves landlords and farmers to look to this, for wages must rise with the cost of provisions. If this were the case, the poor man would not be compelled to take his little boy away from school at eight or nine years of age to go to work for food, but he would be able to keep him at school till twelve or thirteen; and then I should have candidates for my prize, No. 45, which our chairman so kindly noticed, but which this day is to be marked 'no competition.' What we require is, I believe, a more extended sphere of encouragement in this direction, and in other branches that would directly or indirectly tend to improve the moral and physical condition of the labourer (hear). For instance, let there be a prize also for the farmer who would supply the best home-brewed beer for his men—(laughter)—let the masters take steps for the men having good beef, and mutton, and pork as well as bread. Depend on it it will pay well; the men will be twice as strong, and much more proof against disease. Let them take the trouble to provide 'change' for the payment of every man's weekly wages, and not force him to go and change £5 notes or sovereigns at the public house. Let the men have half-holidays on Saturday—'all work and no play makes Jack a dull boy'—(hurrah)—let every village have its playground for cricket and other manly games—let prizes be given for prowess in these, and for the produce of poor men's gardens—(cheers)—and let prizes be given for the best reapers as well as the best ploughers. I was in Belgium lately, and saw a capital instrument for reaping, between a scythe and a sickle—I hope to have one to show at the next meeting—there was no wasteful scattering of wheat, and the work was easier than with either of those implements; no great horse drag was required to drag up the leavings, which I am sorry to see in many places in this county lying on the ground for five or six weeks after the sheaves are carried, left to grow and moulder on the ground, so as to be little or no good to the farmer, and also keeping the gleaners out of the field. I saw also the Belgian hedges of quick, only about six inches wide and four feet high, growing like thick trellis work, and not a blade of grass or weed at the bottom. Why should not the Hertfordshire hedges be in the same way; why not the men do this when there is no other work for them? If the employment of the labourers be one of the criterions of a parson's conduct, as was just now stated by our vice-chairman, I must plead guilty to being a very bad parson (no, no) for often I see fifteen or twenty men of my parish out of work; but the fact is, in Arderley, there are—even after all the drain of the war and militia—about twenty men more than the land requires, and yet, by the absurdities of our poor law, they are tied down to the parish—(cheers)—and dare not go beyond the neighbourhood for employment. I say these restrictions are a clog to the labourer, and inconsistent with these days of locomotion (hear). We have free trade in corn, and we want free trade in labour—(cheers)—let the labourer when in distress be relieved wherever he is. But the course I propose would prevent distress, diminish poor rates, and promote independence; and I think these societies, through their more influential members, ought to bring about this improvement in the condition of the labourer."

THE POULTRY CHRONICLE.

POULTRY SHOWS.

ESSEX. At Colchester, 8th, 9th, and 10th of January, 1857. Secs. G. E. Attwood, and W. A. Warwick.

WELLINGTON, SALOP. At Wellington, Salop, 26th and 27th of Feb. Sec. Mr. T. W. Jones. Entries close Monday, February 18th.

WHARFDALE. April 18th, at Otley. Sec. Mr. T. Metcalfe, Otley.

WINDSOR POULTRY EXHIBITION. At Windsor, 4th, 5th, and 6th of June. Secs. Thos. Chamberlain, and Henry Thompson. Entries will close May 10th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

It is said, that when troops are marshalled in their respective positions for an engagement which is about to take place, it is the quietest moment in an army, and the time when men are most disposed to listen to reason. Neither the excitement during the fight, nor the prostration after it, having taken place.

Our great poultry fight is ended, and Birmingham has resounded with the shouts of the victors, and the wailings of the defeated, but the report is before our readers, and we would, therefore, use our quiet moment for a few words on Eggs.

The subject is suggested by the following article taken from a French paper:—

"Few people form an exact idea of the importance attained by many branches of our rural industry, such, for example, as the product of eggs. France sends every year to England about 7,780,000 kilogrammes of eggs, say 717,160,000 eggs, at a calculation of twenty-two for the kilogramme. Reckoning that a hen lays 100 eggs in a year, which is a fair average, it will be seen that this exportation is the produce of 1,711,600 hens. Our importations from other countries are only about 66,000 kilogrammes, and about the eighth of those sent to England are supplied by Belgium, and the Sardinian states. As for the consumption in Paris, it is not less than five or six millions of kilogrammes, that is to say, from 110 to 132 millions of eggs."

Our neighbours are clever in their statistics, and it is said that peace has so developed their energies, that in those manufactures on which we most pride ourselves, our superiority disappeared when the productions were side by side at the exhibition in Paris. We doubt not our great iron-founders will be on the alert. We will leave them to "The Times," but on eggs we must say a few words.

It will not be said there is not a demand, when it is proved that so many millions are consumed over and above what the country can produce. Our own-poultry-keepers have a great advantage over foreigners. They have no freight, duty, nor expensive packing. Their market is always close at hand. A still greater advantage is, that the expense incurred by the foreign exporter, in collecting from Belgium and Sardinia, is just so much encouragement to ourselves.

The first idea that strikes us is, that in many large farm-yards many more fowls might be kept, without causing extra expense. Let us admit that the occupier is not a poultry fancier. A hen lays 100 eggs, and they are worth at least five shillings; a hundred hens will then pay, in eggs, twenty-five pounds. But, with care in selecting the breed and the birds, they may be made to produce more. We say nothing of food, because the fowls bred at a farm will more than pay any expense. Near a large town, where there is a demand for new-laid eggs in the winter, and at the commencement of the spring, they will realise much more than we have stated above.

We will say nothing of the other mode of making

poultry profitable, as we have so lately treated of it. We desire only to call attention to the fact, that a great demand exists, that all the advantage is on the side of the home producer, while his inattention to it throws it into the hands of others who are more careful to look at small matters.

ON FATTENING POULTRY.

PRIZE ESSAY.

(From the Report of the Yorkshire Agricultural Society.)

CHAPTER I.—THE PRINCIPLES OF FEEDING.

SECTION I.—*The Purposes served by Food.*

The purposes served by food when taken in the body are of several distinct kinds, and may be spoken of as—

1. The production of Animal Warmth.
2. The supply of the Materials required for the Growth and Waste of the Muscles, &c.
3. The supply of the Mineral and Saline Substance contained in the Body.
4. The supply of the Waste or Increase of Fat.

The warmth, natural to living animals, depends upon the consumption of a certain portion of the food in the process of breathing; the substances consumed in this manner are chiefly those which contain a large quantity of carbon, which passes off in the breath, in the form of carbonic acid.

The most important warmth-giving foods are, starch, sugar, gum, the softer fibres of plants, and oily or fatty substances; as the natural warmth of an animal in health remains the same at all times, it necessarily follows, that a larger supply of warmth-giving food is required in cold situations than warm ones.

During motion, or under excitement of any kind, the breathing is hastened; and, consequently, a larger amount of carbon is thrown off the lungs. In quietude and sleep, on the contrary, the breathing is slower, and the quantity of food consumed in this manner is lessened. These circumstances will render evident the utility of keeping fattening animals in a house of moderately warm temperature, and one sufficiently quiet and darkened, to conduce to rest and sleep.

To supply the materials of the growth of young animals, and repair the waste arising from the daily action of the limbs, and from other causes, a second variety of food is required; for the starch and other substances before enumerated, *have been proved, by direct-experiment, to have not the slightest action in supplying these wants.* Substances possessing this power may be termed flesh-forming foods. The most important are, the gluten, and similar substances, existing in variable quantities, in different grains; and, in larger proportion, in the varieties of pulse, as beans, peas, &c.; and in materials which form the solid parts of the flesh of animals, of eggs, of milk, &c. In consequence of their containing the elements of nitrogen, which is wanting in the other varieties of food, these flesh-forming substances are frequently termed *nitrogenous foods*; whilst the fat-forming and warmth-giving are called *carbonaceous foods*.

The mineral and the saline substances contained in the bones, and in other parts of the bodies of animals, occur in larger proportion in the bran than in the inner part of the grain. A due supply of bone-making and saline materials is absolutely requisite to the growth of a healthy animal; as, if wanting in the food, the bones become soft, and the general health speedily fails.

In reference to the present subject, those substances which supply the materials for replacing the waste or the increase of fat are the most important. It is still a point unsettled, amongst the scientific authorities, whether the starchy materials before spoken of, as warmth-giving food, are, or are not capable of being converted, by the living forces of the body, into fat; although there is but little doubt, that under favourable circumstances they are so; but it is unquestioned, that where it is desired to fatten animals *rapidly* (or to supply fat to be consumed in generating warmth, as is necessary in all cold regions), it is the absolute requisite that the food eaten should contain oily and fatty matters which can be readily absorbed by the digestive organs, and either stored up or applied to the immediate wants of the

body. There appears no doubt but that the fatty materials in the food are rapidly absorbed by the body, without undergoing much alteration, therefore, the nature of the food influences very greatly the character of the fat; and, not to seek for examples beyond the animals whose fattening is at present under consideration, the writer knows of an extensive feeder of geese, who always sends his birds to market in an excessively fat condition; but which, nevertheless, do not command the prizes paid for some others in a less fatted state, from the very soft and oily character of the fat, and its being known to lose excessively in cooking. This feeder keeps his process of feeding a secret; but there is little doubt that oil-cake or linseed enters largely into his dietary. The rapid fattening effects of cod liver oil on men and animals prove, also, that fatty substances can be rapidly assimilated by the vital powers: and the following extract from the *Pharmaceutical Journal* substantiates the fact, that they are absorbed without undergoing much change:—

“A quantity of refuse cod livers were sent into the country, and turned under some rubbish, for the purpose of forming manure. Some time after, several pigs discovered the treasure, and fed extensively upon it; although not put up to fatten, they became in very high condition,—so much so, that they were killed without any further preparation. On dressing them, it was found that the fat was yellow, and the flesh very peculiar; during cooking it gave out a strong smell, similar to that of boiled cod livers, and was so offensive that it was unfit for food; in fact it was saturated with oil, which even exuded from the lean when pressed. The fat of the pork did not solidify, but was soft, and smelt like rancid cod liver; even the lungs and the liver appeared saturated with oil; the hams had the appearance of having been soaked in that liquid, and could not be made to take the salt. This circumstance appears to prove that the fatty matters are absorbed without their sensible qualities being altered; the liquid character and rancid flavour of the cod liver oil affecting the fat of the pork.”

SECTION II.—*Examination of the Substances used in Fattening Poultry.*

Supposing the principles above-stated be correct, and both theory and practice tend to prove their perfect truthfulness, it is obvious, that the value of any substance, used as a food for fattening animals, can only be ascertained by a reference to the relative quantity of warmth-giving, flesh-forming, and fat-forming materials it contains; and such an examination will give us a true index of its money value, and enable us to ascertain how far the practice of feeders has been based upon right principles.

OATS AND OATMEAL.—Oats or oatmeal are perhaps more largely employed than any other grain in fattening poultry; and, in this case, the experience of feeders strikingly corresponds with the results afforded by scientific examination. Oatmeal contains, in every 100lbs., 6lbs. of fat or oil, 18lbs. of flesh-forming, and 63lbs. of starchy materials; oats contain the same quantity of fat in every 100lbs.; but in consequence of the large proportion of husk, the quantity of flesh-forming and starchy substances is lessened to 15lbs. of the former, and 47lbs. of the latter; thus oats are not as valuable for fattening purposes as oatmeal,—especially as, from the presence of the husk, and their undivided state, they are not so rapidly digested.

WHEAT AND BRAN, MIDDINGS, &c.—Wheat, in its entire state, contains only one-half the fatty materials of oats, and hence it is not usually employed in fattening; the fat of wheat resides *almost entirely in the outer portions*, which, when removed, constitute bran, pollard, and middlings,—the latter, or finest bran, has been remarked, by professor J. Johnston, as being almost similar in its composition to oatmeal, being much richer in both fat and flesh-forming foods than the inner parts of the grain. Its value in fattening pigs has been long known; and the writer can speak, from long experience, that it is equally efficacious in fattening poultry. It contains 6lbs. of fat, 18lbs. of flesh-forming, and about 53lbs. of warmth-giving food in every 100lbs.

BARLEY AND BARLEY-MEAL.—Barley is not advantageous as a fattening food, as its per centage of fat is very low, being not more than 2lbs. in every 100lbs.

INDIAN CORN.—Indian Corn is remarkable for the large

quantity of oil contained in yellow varieties—nearly 8lbs. in every 100lbs. Its capability of supplying flesh is not so great as that of oatmeal, hence, it is not well adapted for laying-hens, which it renders too fat; but this peculiarity fits it remarkably for fattening poultry, for which purpose it is largely employed in the United States.

RICE.—Rice is one of the least advantageous foods either for fattening or supplying flesh; it contains only a trace of fatty materials, and less than half the quantity of flesh-forming food contained in oats.

PEAS AND BEANS.—All the varieties of pulse contain a much larger proportion of flesh-forming or nitrogenous substances than any grain,—in fact, about twenty-five per cent., or double the quantity contained in wheat; whilst the proportion of fat is not more than 2 in the 100. This composition admirably fits them for the support of the animals undergoing much muscular exertion; given to fattening animals, they are apt to harden the fibre, as in the well-known case of bean-fed bacon; and the elaborate experiments of Mr. Lawes, in pig and sheep-feeding, prove most distinctly, that the increase in weight of a fattening animal is dependent on the carbonaceous, and not on the nitrogenous constituents of its food.

MILK.—Milk is a most advantageous addition to the food of poultry, as it contains 3lbs. of fat (butter), nearly 5lbs. of warmth-giving (sugar of milk), and 4½lbs. of flesh-forming food (cndr), in every 100lbs. Skimmed milk, or butter-milk, from having had the fat removed, are by no means so advantageous.

ANIMAL FAT.—If any pure fat is given to fattening fowls, it is evident, from what has been previously stated, that it should be of as solid a character as possible, for as it is assimilated without much change, it is evident that the firm character of the fattened poultry is much increased by it. The evil effect of linseed-cake upon geese has already been alluded to, arising from the liquid contained in it; the best addition to the food of poultry consists, therefore, of the hardest and cheapest variety of common fat, namely, mutton suet, or what is equally good, the paring of the loins, which are at present sold to the tallow melter.

COOKING FOOD.—One other circumstance remains to be considered in this Section, namely, the alteration effected in food by cooking. The influence of heat is chiefly exerted, in the case of vegetable foods, on the starch, which constitutes so large a portion of all grain: this, in its natural state, consists of small granules, which are (as in the well-known case of arrowroot, a very pure variety of starch), insoluble in cold water, from the circumstance that each is coated with a firm membrane; when heated to a degree somewhat short of boiling water, this membrane cracks, and the interior gummy portion of each granule dissolves in the water and thickens it. There is no doubt but the starch, thus altered, is more readily and rapidly digested than in its insoluble state; hence the advantage of cooked food for fattening pigs, and the desirability of employing boiling water to scald the meal used in fattening poultry.

It may perhaps lead to easier understanding of the relative value of the different kinds of food, if their constituents are stated in a tabular form, it being borne in mind, that such statements are merely approximations to the truth, as the composition of grain varies with the character of the season and the soil.

TABLE, shewing the composition of the substances employed in fattening poultry.

EVERY 100lbs. OF	Fat or Oil.	Flesh-forming Food.	Warmth-giving Food.	Mineral Substances.	Husk or Fibre.	Water.
Oats contain	6	15	47	2	20	9½
Oatmeal	6	18	63	2	2	9
Wheat	3	12	70	2	1	12
Middlings (<i>fine bran</i>),...	6	18	53	5	4	14
Barley	2	11	60	2	14	11
Indian Corn	8	11	65	1	5	10
Rice	A trace.	7	80	A trace.	—	10
Beans and Peas.....	2	25	48	2	8	15
Milk.....	3	4½	5	2	—	87

CHAPTER II.—THE PRACTICE OF FATTENING.

SECTION I.—Selection of Breed.

In fattening poultry for the large markets, no success can be expected unless suitable varieties are selected; in fowls, as in other domesticated animals, some varieties are much more readily disposed to fatten than others, and one breed may be characterized by the tendency to fat internally, and another externally.

To those who have had extensive experience in the different breeds, there can be no question as to the best variety for table purposes. The coloured Dorking surpasses, in this respect, all other kinds; its superiority consisting in the large size it attains at an early age, in its short legs and compact form, in the fineness of its bones, and the small quantity of offal, in the quantity of flesh upon the breast, in the extreme whiteness and delicacy of the meat, and the readiness with which it fattens. The large Surrey fowls, which are only to be distinguished from the Dorking by the absence of the fifth toe, are equally valuable for table purposes.

The white Dorking, as at present known, is not to be strongly recommended, as it is evidently a distinct variety from the coloured; the size, carriage, and general form of the birds being dissimilar. The only drawback to the superiority of the Dorking consists in the delicacy of the breed when chicken; this, on heavy clay land, or in damp situations, is a serious evil. Under such circumstances, many persons of great experience recommend crossing the breed, by having a large Malay or Cochon cock with Dorking hens, or a Dorking cock with Cochon or Malay hens; care being taken not to rear any of the cross-breed chicken for stock, but to fatten them all for the table. By this means, greater hardihood and large size may be obtained; but the writer has never succeeded in rearing such chicken with the plump breasts and short limbs of the pure bred Dorking.

Should it be deemed desirable to cross the Dorkings for the purpose of producing a hardier fowl, such a plan as the following seems to offer the best chance of success; being based upon the fact, that, in cross breeding, the pullets usually resemble the mother, and the cockerels the father:—Early in the year, so as to obtain a brood in May, put two or three large Dorking hens with a short-legged, compact Cochon cock, either of the common buff, or of the grey variety known as the Brahma Pootras. From the chicken select those pullets possessing in the greatest degree the Dorking character, viz.—having fine bone, short white legs, and compact body, square on the limbs; and, in the following season, mate these with a good Dorking cock. The progeny thus obtained from them will be three-fourths Dorking, and, if care is taken in the selection, will show very little trace of Cochon blood; whilst the size and constitutional hardihood of the breed would be much improved by the infusion of new blood from the hardiest of races. One caution, however, would be requisite;—if these birds were allowed to breed amongst themselves, they would occasionally throw back to the Cochon; it would be, therefore, necessary to mate the pullets again with a Dorking cock; and, as in all cases of breeding for size and strength, great care must be taken to avoid breeding closely, viz., from birds related to each other.

Cochons, although of great weight, cannot be recommended as a profitable market fowl: their small breasts, yellow skin and fat, game-like flavour, coarseness of bone, and length of limb, being much against them; and it is almost impossible to render them fat upon the breast, as they have an unusual tendency to accumulate fat internally. It should be remembered, that unless a fowl has naturally a full chest, it is impossible to put flesh or muscle on it by fattening; for there is this distinction between the flesh of quadrupeds and that of birds, that in the former, the flesh can be increased in size by the intermixture of fat between the fibres, which gives rise to the marbled appearance seen in prime beef. This, however, cannot be done in the case of birds, their muscles being always destitute of fat, which is deposited under the skin, or in the interior of the body only.

SECTION II.—Breeding.

In rearing fowls for the market, the early treatment of the chicken is of the highest importance; they should be warmly

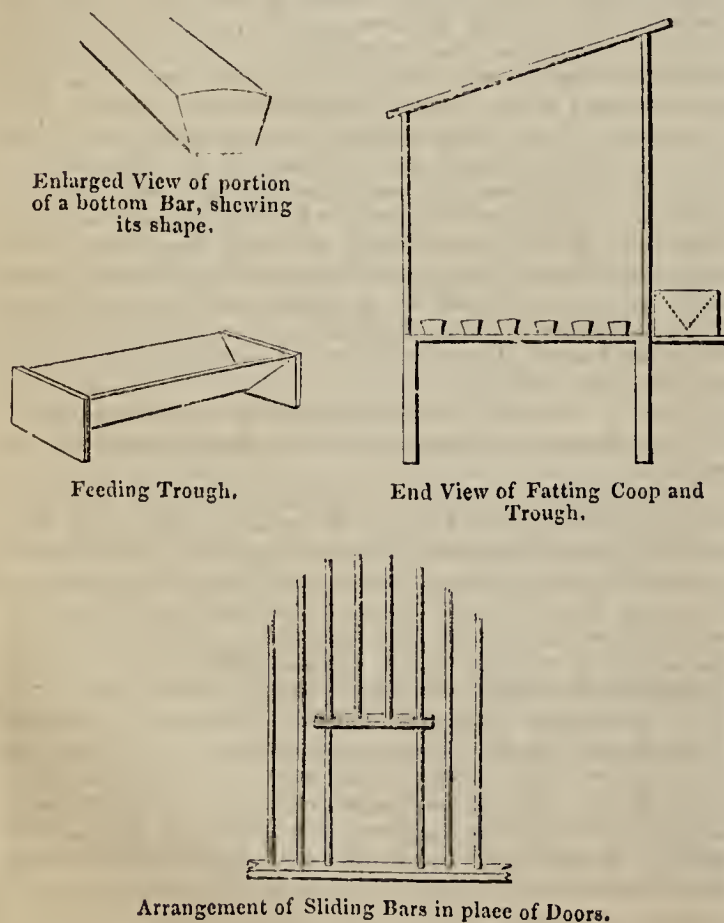
sheltered, and housed, and moreover fed most liberally at very short intervals. If a chick receives a check in its growth at an early age, it never afterwards attains a large size, as the bony frame becomes set, and a stunted growth is the inevitable result.

With good and abundant feeding, and the advantage of a free run, in favourable weather, Dorkings will become fit for the purpose of fattening at the age of three to four months in summer, and four to five or six in winter. In order to be in the highest perfection, fowls must be killed before they have arrived at their full development: the male birds should be taken when the sickle feathers of the tail begin to show; or, as the country women say, "when their tails begin to turn;" and the females, whilst still pullets, viz.,—before they have laid.

SECTION III.—House, Coops, &c.

The house in which poultry are fattened should be free from draughts of cold air, and kept at a moderately warm and uniform temperature; the roof, therefore, if of tiles, should be thickly lined with straw. Quietude being so especially desirable, it should be so situated as not to be accessible to those fowls at liberty; and it should be partially darkened, if possible. It is also important, in the highest degree, that it should be perfectly dry, as it is scarcely necessary to add, that a fowl suffering from cold and inflammation is not likely to fatten.

The fattening coops should be two feet six or eight inches high in front, and about two feet deep, with a boarded roof sloping backwards, as shewn in the end view; the back and ends should be closed, and the bottom made of flat bars with rounded edges, two inches wide at the top and narrower beneath (as shewn in the section), so as to prevent the dung sticking to the sides. These bars should run from end to end of the coop (not from back to front), and they should be two inches apart on the upper sides. The front of the coop should consist of rounded bars, three inches apart, and two rods connected together below, and sliding through holes made in the roof, will be found more secure than a door. Before the front should run a ledge to support the feeding troughs, which are best made by joining two pieces of wood at a right angle, and securing the ends by letting them into grooves in stout end pieces, as shown in the sketch.



The fattening coops should stand on legs, to raise them a convenient height from the ground, so that the dung may

be removed daily; the most scrupulous cleanliness must be observed, otherwise disease will be produced. The coops, therefore, should be frequently lime-washed (with freshly slaked lime and water), and then thoroughly dried before a fresh batch of fowls are introduced.

In cold weather, the front should be covered up with matting, or some other warm material, at night.

The length of the coop must depend on the number of fowls that it is required to contain; but it is never advisable to place more than ten or a dozen together; and if strange fowls are put up, care must be taken that they agree well together, as otherwise the constant excitement would prevent their fattening.

It occasionally happens, that fowls are infested with lice to such a degree that they become irritable, and refuse to fatten; in these cases, a little flour of brimstone dusted under the feathers, before cooping them, immediately expels the vermin.

SECTION IV.—Food.

The food usually selected for fattening poultry is oatmeal mixed either with scalding milk or water; the cause of the superiority of this meal over that of barley has already been stated. Cooped fowls should be supplied with fresh food three times daily, namely,—at day break, or as soon after as possible, at midday, and again at roosting time; as much as they can eat should be given on each occasion, but no more than can be devoured before the next meal; should any be left, it should be removed and given to the other fowls; as, if kept, it is apt to become sour, when the birds will not eat it freely. The troughs for the soft meat should be scalded out daily, which can only be done conveniently by having a supply of spare ones.

In addition to soft food, a supply of fresh clean water must be constantly present, and a little gravel must be given daily, otherwise the grinding action of the gizzard, which is necessary to the due digestion of the food, does not go on satisfactorily; the supply of a little green food will be found very advantageous to health; a little sliced cabbage, or some turnip-tops, or a green turf to peck occasionally, being all that is required.

A variation in the diet will be found very conducive to an increased appetite, and therefore the occasional substitution of a feed of boiled barley, for the slaked oatmeal, is desirable. Some feeders have a division in their troughs, or, still better, a small extra trough, which always contains some grains for the fowls to peck at.

Should the birds be required very fat, some mutton suet or trimmings of the loins may be chopped up and scalded with the meal, or they may be boiled in the milk or water preparatory to its being poured over the food, and the fat of fowls so fattened will be found exceedingly firm.

An objection to this mode of fattening will probably be made, namely,—that it is expensive, owing to the cost of oatmeal. In the yard of the writer, this objection has been removed by the partial substitution of fine middlings for oatmeal. The plan adopted, is to bake the middlings dry, and when made as hot as possible, without burning, cold water is added, so as to make the whole a crumbly mass. When it is borne in mind that the constituents of fine middlings are nearly the same as those of oatmeal, its value as a fattening food must be admitted; and the writer, from long experience, can speak very decidedly as to its utility when used in conjunction with oatmeal.

In the course of about a fortnight to three weeks at the utmost, a fowl will have attained, under this system of feeding, the highest degree of fatness of which it is capable, and it must then be killed; for if the attempt be made to keep it any longer in that state, it becomes diseased from an inflammatory action being established, which renders the flesh hard and even unwholesome.

When the fowls have arrived at a state fit for killing, they should be kept for twelve hours without food or water, in order that the intestines may be as empty as possible, otherwise the bird turns green and useless in a short time; this is readily managed by killing the bird before feeding time in the morning.

The writer has never found it requisite to have recourse to the unnatural practice of cramming; but as a description of the process may be supposed to be essential to an essay on fattening fowls, an account is inserted.

In cramming, the usual plan is to mix the oatmeal rather solid, with milk or water, and to roll it into small sausage-shaped masses, the size of the finger, and about two inches long; half a dozen of these are taken, and having been dipped in some liquid, as milk, are placed one after the other in the back part of the mouth of the fowl, when the beak is closed, and the mass gently assisted down the throat by the latter being stroked by the hand, before a second is inserted.

The birds are crammed in this way two or three times a day, care being taken to ascertain, by gentle handling, that the last meal has passed through the crop; should this not be the case, more is not given, but some lukewarm water is poured into the mouth to loosen the hardened mass, and prevent the bird becoming crop-bound, an evil which would render it useless for the table.

The fattened Dorkings prepared for the London market by the plans above described, are frequently termed capons, but incorrectly, as the operation of caponizing has not been performed on them; in fact, it is not required, if the birds are cooped before they have arrived at maturity; and the extremely severe nature of the operation in fowls, as compared with the corresponding one on quadrupeds, renders it attended with so much risk and loss, that it is very seldom practiced in this country.

In conclusion, a few words may be said respecting fattening the other varieties of domestic poultry.

TURKEYS.—If well fed, scarcely require any fattening process. Should, however, it be deemed requisite, they may be confined within a moderate range, and liberally supplied with meal and milk, with occasional green food, as recommended for fowls. Barley meal is usually employed, but its inferiority to oatmeal has already been insisted on.

GEESE.—Geese are also, if well kept, usually in sufficiently good condition for killing. Should it be required to fatten them, several together should be confined in a comfortable shed, kept very clean by the daily removal of the soiled litter, and they may be fed for a fortnight on oats thrown into a pan of water; and should they be required still fatter, an additional ten day's feeding on scalded meal, or middlings and meal, will be found all that is requisite; a little green food and gravel being given at the same time.

When geese are killed very young, they are usually termed green geese; and for this purpose, it will be found more desirable to restrict them from the water than to allow them free access to it, as they fatten more readily, and attain a larger size at their early age.

DUCKS.—Ducks, from being not at all particular in their diet, require to be confined to clean food some days before they are killed. If they are shut up in a shed, or confined in a small enclosure, and liberally fed with whole oats in water, and meal slaked, they will be found, in a fortnight, to have become sufficiently fat for all useful purposes. It is not essential that they should have water to swim in during fattening; in fact, such exercise rather lessens than tends to increase the accumulation of fat.

The early ducklings that realize such high prices in the London markets are of the Aylesbury variety; distinguished by their great size, white plumage, and large, pale flesh-coloured bills. If fed with an unlimited supply of oats placed in a vessel of water, and not allowed much room to swim, the old birds will lay freely in winter; when the eggs should be hatched under hens, and the ducklings liberally fed with slaked oatmeal and fine middlings, and afterwards with oats in water. Under this treatment they may be made ready for the table in less than two months, and yield a very remunerative return. Ducklings invariably grow much more rapidly if kept from swimming, than if allowed free access to a pond or river.

W. B. TEGETMEIER.

Wood Green, Tottenham, near London.

THE BIRMINGHAM PIGEON PRIZE CUP.

Palmar qui meruit ferat.

I GREATLY fear that your correspondent—who signed himself "TRISTRAM SHANDY, of Hull," in a communication published in your paper on the 1st of January, and which has only now met my eye—must have suffered at the Bir-

mingham Exhibition from a misfortune similar to the one that his namesake—"that unhappy Tristram! Child of wrath! mistake! and discontent"—endured at the hands of Dr. Slop; that is, I fear the decision of the Birmingham Judges, like the forceps of the obstetric Doctor, must have put his nose most sadly out of joint. Surely, no person could have written so vindictive and extraordinary an article, with so little real point, unless suffering from some ill-endured defeat. It is difficult to know, exactly, what he wishes to complain of; except, that in the cup class, where four pens of any distinct varieties had to contend against any other four pens of distinct varieties, those groups were passed over which contained some good and some indifferent birds, with simply a notice of commendation, on account of those they contained that were good; and that the prize was awarded to by far the most perfect and unobjectionable four pens, but which happened, unfortunately, to consist of kinds sometimes designated as *Toys*, instead of *Carriers*, *Pouters*, and *Almonds*, with a pen of one of the other varieties. From this, "TRISTRAM" appears to conclude, that the Judges did not know, *ceteris paribus*, which was of the most money value, or the most difficult to produce—a first-class *Carrier*, or a first-class *Toy*; but I very much doubt if the Judges were not quite as fully aware of the points of excellence, and the difficulty of breeding first-class *Carriers*, *Almonds*, or *Pouters*, as "TRISTRAM SHANDY" himself. They also appear to have known that second-rate birds of those varieties had no right to rob better birds of other, if less choice, varieties, in a contest open to all; and that, as one or two swallows do not make a summer, so one or two good pens were not enough to secure the prize against four pens, equally good, or better.

I think, if we look a little into the matter, and my recollection serves me, we shall be much at a loss to find which of the other four pens, upon their individual and conjoined merits, were to have set aside those that obtained the cup, and to have received the much-coveted award. Were the coarse-yellow *Owls* in one group; the bad-feathered and broken-eyed *Almonds* in another; the *Dun Horsemen*, exhibited as *Carriers*, in a third; or the short-legged, thick-bodied, or badly-deported *Pouters* in a fourth, entitled to share as part recipients of the cup? On the other hand, if we turn to the prize-group—were there better *Fantails* shown among the birds exhibited exclusively in that class? Were there better *Owls* in that class, or *Turbits*! or short-faced *Beards*! Nay; were there any as good? And could not each or any of these have taken prizes in their own class? Can that be said of any other group exhibited for the cup? Which pen of *Pouters* could have done so; even in a class where all were second-rate? The pen of *Almonds* exhibited with the coarse *Dun Horsemen* might, indeed, have done so, as they (the *Almonds*) were good birds; but would those *Dun Horsemen*, or, indeed, any of the *Carriers*, have taken the prizes against those exhibited by Mr. Siddons, though there were a good pair of black, and a good pair of *dun Carriers* exhibited; but, unfortunately, grouped with birds of inferior merit, which militated, no doubt, against their success?

That one of the Judges expressed his opinion strongly, I know, upon the invidious position that an adjudicator was placed in, by the undoubted necessity of awarding the cup to the *BEST four pens of Pigeons of DIFFERENT VARIETIES*, regardless of the relative value of the species to which they belonged; and expressed a sincere hope, that, upon a future occasion, "two cups might be offered; the one for the three best pens of *Carriers*, *Pouters*, and *Almonds* only; the other cup for the three best pens of any other varieties of fancy Pigeons." This, certainly, I consider, would be the fairest course to adopt, both as regards exhibitors and judges.

In conclusion, I would seriously recommend Master "TRISTRAM SHANDY," when again attacking the decisions of gentlemen who are requested to officiate as Judges, to make himself, first of all, fully acquainted with the exact instructions that they have to guide them in adjudging their awards. And as to the accuracy of his own observations, when he descants upon the goodness of the *white Carriers* of Mr. Adkins, I am at a loss to know where they were exhibited! I can only remember the *Dun Horsemen* exhibited by Miss C. Adkins as *Carriers*; but which, certainly, were *not true Carriers* at all; and had it not been for them, and the

Pouter of wretchedly-bad colour, markings, and carriage, which appears also to have found such favour in "TRISTRAM'S" eyes, that lady might, I think, have stood a much fairer chance of the cup; her *Almonds* and black *Fantails* being both, undoubtedly, good of their kinds, and well worthy the high commendation they received.—CORPORAL TRIM, *London*.

EVERY ONE FOR HIS OWN FANCY.

"Sirs," cried the umpire, "cease your pother, The creature's neither one, nor t' other."

"SPLENDID pen of birds," said an enthusiast, before the prize Brahma Poutras, at Birmingham. "What are they?" asked the person to whom the remark was addressed.

"Brahma Poutras," replied the first; "the noblest fowls, the hardiest chickens, the best layers, excellent for the table, consuming little, and producing much."

"But how are they bred?"

"Imported, my dear sir," warming on his subject; "imported from India by an American gentleman, who fortunately raised enough to spread these inestimable birds."

"His name?" asked the querist.

"Dr. Bennett," was the reply.

"I thought so," said a stander by. "Impure, sir. Dr. Bennett never had a pure bird in his life. Mr. Burnam's are the only good birds."

"Mr. Burnam!" shouted the first; "he got only a few from the Doctor; crossed them all manner of ways; sold them at large prices; and then said they were mongrels."

"Gentlemen," said a fourth, "they are none of them pure."

"What, sir!" screamed all three at once, "all impure! I will be answerable for mine," exclaimed each.

"Nasty great brutes," said a stander by. "Talk of laying; look at my Golden-spangles—they *are* fowls; lay as many eggs, each of them, as two of your Brahmas. Look at the cock!"

"Yes, look at him," said another, "a nasty hen-tailed creature; neither cock nor hen."

"I tell you, sir, he is the correct moss, and no fowl is equal to them."

"Nonsense," said a burly man from behind; "they are none of them worthy to be called fowls. Come here," and he led them to a pen of Game. "There," said he, exultingly, "there are birds; the cock has a tail, and all that belongs to his sex; they are hardy, and the owner can always look at them with pleasure."

"Especially," cried a voice, "the first day the young cocks take to fighting. If you want your children to be brutalised, and your yard to look like a slaughter-house, keep Game fowls; they will annoy both your neighbours and yourself. But see," pointing to a pen of *Cochins*; "there are birds that are faultless; they stay at home, lay lots of eggs —"

"And every one costs you a penny," said a new comer; "they eat, each one, as much as a donkey; they are afraid of a shower of rain; they are continually wanting to sit, and are the real poultry stepmothers."

"I quite agree with each of you," said a sleek listener, "and it is difficult to meet with perfection. I believe we, in my class, are as near to it as can be, and few will be bold enough to find fault with such as these—" pointing to a pen of *Dorkings*. "At least, here you have something to eat, and that of the very best quality."

"So you ought," shouted half-a-dozen. "Delicate brutes; you must choose your soil, give them the whole run of the place, and then some supercilious Judge will tell you the comb is incorrect, or the claws badly defined, or some such nonsense. I hate such things," continued one, "and like a breed where every man can judge for himself, like my *Polands*, for instance. Here they are."

"Well, it is wonderful!" said a dapper little man, "how anyone can be so deceived as to fancy such birds. Why, gentlemen, they are continually changing. First, they had no beards; then they must not appear without them. Now, a cock ceases to be a *Poland* cock if he has a comb; then they are subject to disease of the head when the top-knot is growing. It is notorious they are prone to be humpbacked; in fact, they have no constitutions. All amateurs should

seek to combine beauty, symmetry, and utility. Now, my *Pencilled Hamburgs* possess all these. They are small eaters, lay many eggs, are always cheerful and healthy."

"Too bad! Too bad!" said another; "why, every one knows there is more *ronp* among *Pencilled Hamburgs* than any other bird; and then, the idea of putting all your chickens out to wet-nurse because the mothers will not rear them."

"Gentlemen," cried the last, "you are all right in finding fault with each other's fowls. You are all wrong in keeping them. There is nothing so beautiful as a *Bantam*. The eggs, though small, are delicious in flavour; they are not troublesome."

"Oh!" cried one, "you know you may set a hundred eggs for two chickens."

"I could eat four of them at one meal," said another. &c., &c.

As I was following them, I ventured to ask which fowl was the best to keep, and amidst a chorus of, "*Cochins*"—"Won't sit"—"A hundred-and-twenty eggs in five months"—"*Hamburgs*"—"Ronpy"—"For the table"—"Milk sop's fowls"—"Threepence a-day"—"Fight"—"Got no tails"—"A few drops of rain are enough"—"For three sittings of eggs"—"Chickens come out"—"Head and tail up"—"Die like rotten sheep"—"Cross-bred"—"Between fourteen and fifteen days"—and so on, I fled precipitately, believing no fowl would answer my purpose.

As I was leaving the show-yard, I was tapped on the shoulder by a gentleman, who said—"I was very amused, sir, at the scene you have just left. It is astonishing men should allow themselves to be so blind to the defects of their pets, and to imagine they have found perfection. Let me recommend you my favourite fowl, the *Spanish*. You will have no trouble with them, and such eggs!—two of them make a meal." "Are they good sitters?" asked I. "Why, no," said he; "they do not sit." "I suppose the chickens are hardy?" "Yes, after they are fledged." "Not before?" said I. "I must admit," was his reply, "they are delicate when very young." "Well," was my remark, "I fear they will not suit me." "Sorry for it," was the remark; "for you must admit they are free from all the defects of the others." —AMATEUR.

GOLDEN PHEASANTS *versus* SPANGLED HAMBURGHES.

(Continued from page 360.)

No—'tis better to treat this affair of nicknaming the *Golden Pheasants* seriously;—I told you that I should do it in a truly jocular, Shandean humour; but, I see there is more of ignorance than of conceit in it: wherever I detect the latter it shall not pass Scot-free. I must freely quote the Rev. Mr. Dixon; because, his book is really "the head and front of the offending." 'Tis not the first time, that I have had to wage war against, and, I hope, again to defeat, one or two puerile dogmas in his book on *Domestic Poultry*. It will be recollected, that, in his book, he denounced all bearded *Polish* fowls "to the fattening coop!"—and *therefore* the Birmingham Judges, next year, disqualified them,—for Mr. Dixon said so and so! It cost me much inkshed; but right at last prevailed. Yet, I am glad to testify, that no Author has written so earnestly, and so well on *Poultry*; except where practical knowledge and experience are demanded, to clear up a difficulty;—then, he flies for aid, to others.

Poultry Books were scarce, when he wrote; and so men were easily led; and what committee men saw in a book, they too readily adopted in their schedules. I submit, that nothing can be more confused, than the account Mr. Dixon gives of what he, in unlucky hour, would call *Hamburgs*;—he "shows no cause why," whatever.

This unfortunate cognomen of *Hamburg*, upon which he stumbled, was, to him, a constant entanglement—a *Procrustes* bed; so that, having adopted it, he must stretch, or lengthen; pare down, or clip, the names of his fowls, to fit it! Nor after all, is such confusion to be wondered at; when a writer so much depends upon others, and their, of course

varying, "communications;" and does not write from his own practical knowledge.

His first mistake was, in adopting *Hamburgh* instead of *Holland*;—his Pencilled Hamburgs are, truly, *Pencilled Dutch*. *Hamburgh* has no claim to these birds; nor, does he even attempt to show any real claim. *Pencilled Dutch*, is the true and proper name of what are, popularly, also called Bolton Greys, (or Bays)—Chittyprats, Corals, Dutch every-day layers, &c. *They have, for a long series of years past, and are yet, yearly imported into Hull from Rotterdam.*

Having called these fowls Pencilled Hamburgs, Mr. Dixon was, unfortunately, taken with an itching to classify, and to condense; and alas! seized upon—upon what my dear readers?—why, upon our Yorkshire Golden Pheasants; and lumped them into Hamburgs too!! Had he taken the rose-combed Dorkings, (for they have rose combs too, as well as Pheasants,) I'd had pardoned him: but, to Germanise our own pure Yorkshire birds,—birds that are indigenous to Yorkshire,—that have, as I shall hereafter prove, in another communication, by living or by direct testimony in my possession, been widely "bred and born" in Yorkshire, for two centuries!—to nickname these birds *Hamburgh*!—why, by my troth, he'll have our Game Cocks next!

But, has Mr. Dixon no reason for using the term *Hamburgh*? Truly, all that I can discover, is contained in a foot-note—He says, "black grapes which were produced in Spain and Portugal, were called black Hamburgs, inasmuch as the ships that brought them over, touched at *Hamburgh*." So, would he seem to say, why should we not *change the name* of Golden Pheasants, and call them Hamburgs too? altho' they are produced in Yorkshire! who knows but that they also touched at *Hamburgh*!

I said, in my last "Chapter," that Golden Pheasant was a most appropriate name—a name given in accordance with scientific usage; and so it is. Naturalists well know, that, both plants and animals, are constantly named because of certain peculiarities of form, or colour, which they possess. Take a very common example; a certain Lilly, is called the Tiger Lilly; because, in shape, it bears a degree of resemblance to the head of a Tiger; and is, also, spotted like a Tiger. It was never, supposed, because of its name, that it was bred from, or crossed with this ferocious animal! Just so it was, with the Golden Pheasant fowl;—it was so called because *it is spangled like the breast of the wild Pheasant*: not, because it was bred, or crossed with one: hence, indeed, the term "pheasanted," is, by many, used instead of *spangled*—the terms are synonymous.

Again, whatever name be given to the Pencilled Dutch (Pencilled *Hamburgh* of Dixon,) the Golden Pheasant *can not* be called after them;—nor classed with them, as a sub-variety; as well make rose-combed Dorkings, a sub-variety. This point, has been scientifically set at rest, by Mr. Tegetmeier, and Charles Darwin; a name known throughout the scientific world. It is well known, that it is by the formation of the head, that Anatomists, Naturalists, and Ethnologists determine and discriminate the various classes and races of animals; 'tis the most certain guide. Mr. Tegetmeier is now engaged, with Mr. Darwin, in such research respecting the different classes of fowls; and, he courteously informs me, that the widest difference exists, between the so-called Pencilled Hamburgs, and Golden Pheasants;—and that, to classify these birds together, is quite incongruous and inadmissible.

Need I say more?—Surely, looking at the whole question, every unprejudiced man, must call for reform of our schedules; and protest against the violence done, to such a correct and old established name, as Golden Pheasant. This we do know; that, *call them what we may, they have no affinity with the so-called Pencilled Hamburgs*—we cannot call them Hamburgs. The true classification is most clearly this, viz.,

Silver Pencilled Dutch	Golden Pheasant
Golden Pencilled Dutch	Silver Pheasant

(the terms "pheasanted" and "spangled" being synonymous.)

But, my gentle readers, may enquire, how came this name of *Hamburgh* to be "received and adopted?" O, it was adroitly done, twist Mr. Dixon and Mr. Bissel of Birmingham, his Mentor. 'Tis all in the book of Domestic Poultry.

And mark, how easy 'tis done;—and with what research too! Mr. Bissel "communicates," "I see no reason, except old association," (that is, an old and scientific name, of some centuries;) "why the term, pheasant, should not be at once abandoned in both the Gold and Silver varieties!" Coolish this, truly; aye and foolish, withal. But, my dear readers, I will not weary you, with further quotations from the communings of Mr. Dixon with Mr. Bissel; and *vice versa*. Here's the gist of it, in a paraphrase; with which, I conclude this Chapter from the *Tristramædia*.

Mr. Dixon.—It is the world's opinion, Mr. Bissel,
That you, in poultry matters, are a Judge
Of marvellous authority.

Mr. Bissel.—Why, sooth to say, men think that so I am.

Mr. Dixon.—And they think well. You like not then, I'm sure,

The old standing name of Golden Pheasant?

Mr. Bissel.—Why, now that I bethink me, you say true,
Verily, I like it not.

Mr. Dixon.—Since then, dear Sir, we've call'd these Holland birds—

These Pencilled Dutch,—(Corals, or Bolton Greys,)

Since their true name we've chang'd, to Pencilled Hamburgs;

What hinders us, from *lumping of them all*!—
Yea, let us call these Golden Pheasants—
spangled though they be—

Let us call them too Hamburgs—Spangled Hamburgs!

Mr. Bissel.—Yea marry, an' we will!

By cock and pie, we'll have them Hamburgs too;

Then, I'll so use our Birmingham Committee,
That, in their schedule, they shall call them Hamburgs;

When, by the mass, the world at large will follow it.

Mr. Dixon.—Ah, ah! and so it will!

My book and Bissel shall keep them to a schedule!

You "see no reason;"—why no more will I,
Why Golden Pheasants should not now be changed.

A Yorkshire breed; aye, and two centuries old!
Oh! what a fusty, and old name it is!

'Tis time that it were changed—all things do change—

And so, like black Grapes, we will so call them
Hamburgs.—TRISTRAM SHANDY.

CAPTAIN HORNBY'S SPANISH FOWLS.

I AM am not inclined to quarrel with "M.'s" "*modesty*," or even to call in question the opinion he expresses in his notes on the Liverpool Poultry Show, as to the relative merits of the first and second prize pens of Spanish. His judgment is probably correct; and I gave the best proof, that far from "making a mistake," I agreed with him, by securing *both* pens.

I believe the truth of the matter to be, that both pens were, intrinsically, almost equally good; but the award (I think) was quite correct, as the Silver Cup birds were in decidedly higher condition than those which took the second prize.

What the result may be "at future exhibitions," I cannot say; but I shall be very glad to give "M." an opportunity of confirming or changing his opinions as to the merits of the birds, should he ever be inclined to come here, and see them on their walks.—W. W. HORNBY, *Knowsley Cottage*.

QUERIES AND ANSWERS.

GARDENING.

SUCCESSION OF FLOWERS UNDER GLASS.

"I have a Pine-stove, Fern-house, Greenhouse, and Pit, heated by hot-water, and I want to have flowers all the year

round. I, therefore, wish to know if I can have them from the following, and if the proportion of each will be about right? If not, I shall be much obliged by your informing me where I am wrong. Sixty Camellias, thirty Azaleas, thirty Epacrises, one hundred Geraniums, fifty Fuchsias, thirty Primulas, twenty Petunias, twenty Chrysanthemums, eight Acacias, twelve Roses, and twelve Calceolarias. In the Pine-stove I have Euphorbia jacquiniiflora and splendens; Franciscea Hopeana and latifolia; Begonia nitida and insignis, fuchsoides, sanguinea, semperflorens, and argyrostigma; Ipomea Horsfallii; Ixora coccinea; Rondeletia speciosa major; Gloxinias; Achimenes; Gardenia florida; Justicia purpurea and speciosa; and Bletia Tankervilleae.

"I have just finished my Fern-house, and am in want of some stove plants to put on the front stage, but I do not know what to buy. I have a plant of *Musa Cavendishii* in a pot, which I intend to put in the Fern-house. Should I keep it in the pot, or plant it out in the bed? The bed has bottom-heat. What can I grow in the tank, ten feet by two feet six inches?—TROUBLESOME."

[We think you will find the want of *Cinerarias*, for winter and spring, and various kinds of bulbs, otherwise your collection seems all right for your space.]

For the front of the Fernery, we would recommend such striking foliated plants as the *Caladiums*, with variegated foliage, *Dracaena draco* and others, the variegated, striped Pine-Apple-like plants, of which Mr. Veitch has such a collection. *Orotans*, the variegated kinds, and *Aphelandra Leopoldii*. Such plants will present a distinct feature on the front shelf of such a house, and a continual variety of colour, even from their foliage alone, a fact fitting them well for a Fern-house. The *Musa* will do best planted out in rich, loamy, fibry soil.

The tank would give a nice collection of *Nymphaeas*, and what can be more beautiful? In winter, plants of variegated colour, &c., could be placed just above the water.]

PROPAGATING LYCOPODIUMS.—BLOOMING NEAPOLITAN VIOLETS.

"Which is the best way of propagating the *Lycopodium denticulatum*?

"I have some Russian and Neapolitan Violets in my greenhouse in a temperature of 45° to 50°, which, though healthy, do not bloom or seem likely to do so. They were taken off the parent plants last May, and then potted and plunged on a cool border; they were shifted in July into 32's, and replunged and finally housed in October.

"The soil is a calcareous loam, mixed with abundance of lime rubbish, and is so porous, that in watering the water does not stand an instant, but immediately disappears.

"What should be the treatment to make them bloom another year? and when ought they to flower under cold-pit treatment from October?—N. Y. Z."

[Divide the *Lycopodiums* into little pieces, and each will soon make a large plant. The soil is too light for Violets in pots. Give them more loam. We do not see exactly how they have not flowered. We like planting out better than potting. There is no difficulty with the *Russian*; proceed thus with *Neapolitan*. About the end of March, tear the plants up into little pieces, throwing all runners aside; plant the pieces on a nicely-dug border, about eight inches apart. Keep them clear of weeds during summer, give plenty of water, and, above all, never allow a runner to grow. By the middle of September you will have nice, shrubby plants, full of heart, and these, either potted, or placed in a bed, will be sure to flower in the temperature you specify.]

RIPENING FORCED STRAWBERRIES UNDER OILED CALICO.

"Having a lean-to Vinery, forty-two feet by fourteen feet, I usually place about 300 pots of Strawberries in the house, and get on very well until the last week in April, or first week in May, about which time the Vines begin to bloom, and the Strawberries are then too much in the shade.

"Will you kindly inform me whether the Strawberries would colour properly, and be of good flavour, if placed

under the canvass called Frigi Domo, oiled paper, or cloth, provided the temperature was kept up to 65°?—A CONSTANT READER."

[We have no notion of the Frigi Domo for the purpose you specify. As it would be difficult keeping up the heat, 5° or 10° less than you specify would do. Glass sashes would be best for such a purpose. Bleached calico, glazed or unglazed, with oil and bees-wax, &c., would be the next best. We have found that bleached calico, as it is, lets in a very fair portion of light, and plenty of air can be given. It also lasts longer than when oiled or glazed to let more light through. We have found Strawberries, under such a covering, with plenty of air given, better flavoured than when ripened under a dense shade of Vine leaves.]

LIME-WATER FOR DESTROYING WORMS IN POTS.

"I observed, at p. 132, an article by Mr. Fish, as to lime-water destroying worms in pots, but with tender-growing things it might be too much, and Mr. Fish did not specify the tender things that should be avoided. I am not aware it matters as regards the quantity of lime, providing it is allowed to settle or subside, water dissolving only a certain quantity of lime. My plants are too large to turn out the balls, viz., Heaths, Polygalas, Pimelias, Azaleas, Epacris, Correas, &c.; will lime water be too much for these?—C. K."

[You are quite right as to the quantity of lime that can be held in solution in clear water; but, still, the strength of that lime-water will greatly depend on the freshness and the quality of the lime when used in solution afterwards. We should have no objection to use it strong and fresh for Geraniums, Calceolarias, Cinerarias, and other robust, soft-wooded plants; but we should decline using it for Ericas, Heaths, and such plants as you mention, until it has become milder, or you have so much diluted it as to tell less forcibly on the worms. The most of the plants you mention dislike calcareous matter altogether, and that is one reason why Mr. Fish urged caution. For such plants, we would prefer turning the plant out of the pot, however large, and starting the worms by pricking the ball through with a wire, or a fine wooden skewer.]

MYRTLE CULTURE.

"A possessor of the whole of THE COTTAGE GARDENER'S papers; one who is grateful to it for all she knows of gardening, having come from a country where gardening is next to impossible, from cold; one who, in grief and anxiety, has found gardening the only worldly pleasure that could comfort her, and who has often had questions answered in your journal, begs you to give her a hint how to treat her *Myrtles*. They stand in a greenhouse where Geraniums, Camellias, Chrysanthemums, Cinerarias, and Calceolarias, besides many other plants, are thriving admirably; but the Myrtle in winter gets pale, drops its leaves, and the branches look sickly and naked. An insect, like that which you find on Orange-trees, flat and motionless, is frequently seen upon it; by washing the leaves they are all got rid of, but in a short time they return again. Pray mention what should be used to kill it more easily than a sponge with common soap and water, and what soil should be used."

[As your other plants are thriving so admirably, and require rather more attention than the *Myrtle*, we fear there is something radically wrong with it. It grows in almost any soil, sandy-loam and a little peat, or leaf-mould, suiting it very well; and it is very easily propagated by pieces of the shoots being stuck into sandy soil. Hundreds are propagated this way in old cups and broken teapots, and, frequently, a thrifty house-wife will stick half-a-dozen of slips round the sides of the pot in which the mother plant is growing, and gives each a fresh pot when rooted, that she may exercise and reap the rich reward of doing a kindness to a friend or neighbour. Such plants generally thrive well in common garden soil, or, better still, in the sandy loam from a road side. A little tobacco-water added to the soap-water would assist our correspondent in getting rid of the insects (the Scale, *Coccus*) which are, no doubt, a great cause of the

mischief, if the drainage is all right, and plenty of water is given to soak the ball right through. If, however, the plant is any size, we would prune it well back by the end of April, and thus get rid of leaves and insects at once; wash it, then—the stems, we mean—thoroughly with the mixture alluded to, so as to get rid of all insects. Scrape away the surface-soil for the same purpose, and the plant, if at all worth keeping, will break fresh and strong in summer, and give new foliage and shoots free of insects. We shall be most glad to assist you in any way. Such letters as your's prove we are not useless in the human hive.]

LONDON MARKETS.—FEBRUARY 18TH.

COVENT GARDEN.

Supply moderate; quotations remain about the same, the late heavy rains having somewhat interfered with out-door operations. Importations from the Continent now take place regularly three times a week, consisting of all sorts of *Salading*, *Asparagus*, *Radishes*, and a few indifferent varieties of *Pears*. Cornish *Brocoli* comes very freely, as much as thirty tons having been pitched here this week; and should the present open weather continue, we may expect out-door *Asparagus* in another fortnight. The *Potato* trade reports are very heavy, nothing meeting with a ready sale but first-rate samples.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s.
" dessert	6s. " 10s.
Pears	8s. " 12s.
Peaches, per doz....	—
Nectarines, per doz...	—
Plums, per sieve	—
Pine-apples, per lb....	6s. " 8s.
Grapes, per lb.....	2s. " 8s.
Foreign Melons, each	2s. " 4s.
Figs.....	—
Gooseberries, per qt.	—
Currants.....	—
Raspberries	—
Strawberries, per pottle	—
Oranges, per 100	4s. " 10s.
Lemons	6s. " 12s.
Almonds, per lb.....	2s. " —
Nuts, Filberts, per 100 lbs.	50s. " 60s.
" Cobs, ditto ..	60s. " 70s.
" Barcelona, per bushel	20s. " 22s.
Nuts, Brazil, per bushel	12s. " 14s.
Walnuts, per 1000 ..	9s. " 12s.
Chestnuts per bushel	12s. " 20s.

VEGETABLES.

Cabbages, per doz. 1s. to 1s. 6d.	
" Red, per doz. 2s. " 4s.	
Cauliflowers, per doz. 4s. to 6s.	
Brocoli per bble	1s. " 2s.
Savoy.....	1s. " 2s.
Greens, per dozen bunches	4s. " 6s.
Spinach, per sieve....	— " 4s.
Beans	—
French Beans, per hundred	3s. " 4s.
Scarlet Runners	—

Peas, per bushel	—
Carrots, per bunch ..	4d. " 6d.
Parsnips, per doz....	6d. " 9d.
Beet, per doz.	1s. " 1s. 6d.
Potatoes, per cwt. ..	3s. " 6s.
Turnips, per bunch ..	" 3d.
Onions, young, per bunch	1d. " 2d.
Leeks, per bunch	2d. " 3d.
Garlic, per lb.	6d. " 8d.
Shallots, per lb.	4d. " 6d.
Horseradish, per bundle	1s. 6d. " 2s. 6d.
Lettuce, Cos, per score	6d. " 1s. 6d.
" Cabbage....	6d. " 8d.
Endive, per score ..	1s. 6d. " 2s.
Celery, per bunch..	9d. " 1s. 6d.
Radishes, Turnip, per dozen bunches ..	1s. " 1s. 6d.
Water Cresses, per dozen bunches	6d. " 9d.
Small Salad, per punnet.....	2d. to 3d.
Artichokes, each	3d. " 6d.
Asparagus, per bundle	5s. " 8s.
Sea-kale, per punnet	2s. " 3s.
Rhubarb, per bundle	1s. 6d.
Cucumbers, each	1s. " 3s.
Vegetable Marrow, per dozen	—
Tomatoes, per punnet	—
Mushrooms, per pot 1s. 6d. to 2s.	

HERBS.

Basil, per bunch	4d. " 6d.
Marjoram, per bunch	4d. " 6d.
Fennel, per bunch ..	2d. " 3d.
Savory, per bunch ..	2d. " 3d.
Thyme, per bunch ..	2d. " 3d.
Parsley, per bunch ..	2d. " 3d.
Mint, per bunch	2d. " 4d.

GRAIN AND SEED.

FRIDAY, FEBRUARY 15.—The arrivals have not materially increased since Wednesday. This morning there is rather an improved tone in the Wheat trade, and fully Monday's prices result. Barley steady, and not cheaper. Oats find buyers at an improvement of 6d. per quarter dearer. All other Grain rather higher.

WHEAT, Essex and Kent red, old.....	—s —s —s, fine —s —s 0s
Ditto ditto new.....	62s 67s —s, fine 69s —s —s
Ditto ditto white old.....	—s —s —s, fine —s —s —s
Ditto ditto new.....	66s 75s —s, fine 70s —s —s
Foreign, red.....	70s 78s —s, fine 79s 87s —s
Ditto white	75s 88s —s, fine 88s 92s —s
RYE.....	50s 52s, fine —s —s
BARLEY, grinding.....	31s 33s, fine 33s 34s
Distilling.....	34s 35s, fine 35s 36s
Malting	36s 38s, fine 38s 40s
MALT	70s 73s, fine 73s 76s
PEAS, hog, new.....	37s 39s, fine —s —s
Maple	40s 42s, fine —s —s
White	42s 46s, fine 46s 48s
Blue	43s 50s, fine 50s 52s
BEANS, pigeon.....	50s 52s —s, new 49s 50s —s
Ticks for splitting	38s 40s —s, new 37s 38s —s
Harrow	47s 50s —s, new 42s 45s —s

OATS, English feed	21s 22s, fine 23s 24s
Poland or brew	25s 26s, fine 26s 27s
Scotch potato	30s 31s, fine 31s 33s
Ditto feed	26s 27s, fine 27s 28s
Irish potato.....	25s 26s, fine 26s 27s
Ditto feed white.....	21s 22s, fine 22s 23s
Ditto black.....	22s 23s, fine 23s 24s
Foreign feed free	21s 22s, fine 22s 23s
Poland or brew	24s 25s, fine 25s 26s
FLOUR, Town made, per sack	64s 67s 70s*, Second 60s 63s
Essex and Suffolk	53s 55s
Norfolk	50s 51s

* This is a nominal price.

HOPS.

BOROUGH MARKET, FRIDAY, FEB. 15.—The trade during the past week has been moderate, and prices continue steady at about recent quotations. Brown and inferior samples are heavy of sale.

Mid. and East Kents, 75s. 112s. to 130s.; Weald of Kents, 70s. 90s. to 100s.; Sussex Pockets, 65s. 84s. to 95s.

HAY AND STRAW.

Clover, 1st cut per load	120s. to 130s.
Ditto, 2nd cut	93s. " 115s.
Meadow Hay	120s. " 130s.
Rowan	84s. to 100s.
Straw, flail	30s. " 33s.
Ditto, machine	28s. " 34s.

POTATO.

SOUTHWARK WATERSIDE, FEB. 11.—The mild state of the weather, combined with large arrivals both coastwise and by rail from all quarters, has caused our market to rule heavy, particularly for qualities of an inferior description. Kent and Essex Regents, 80s. to 90s.; ditto Shaws, 90s. to 95s.; York Regents, 80s. to 100s.; Lincolnshire Regents, 70s. to 80s.; Wisbeach and Cambridge Regents, 0s. to 0s.; Bedford Regents, 90s. to 0s.; ditto Shaws, 95s. to 100s.; Norfolk Regents, 0s. to 0s.; ditto Whites, 65s. to 70s.; Scotch Regents (East Lothian), 80s. to 90s.; ditto (Red Mould), 90s. to 0s.; ditto (Perth and Fife), 70s. to 80s.; ditto (North Country), 60s. to 70s.; Dahlias and Rattlers, 0s.; Blues, 0s.; Orkney Reds (East Lothian), 65s. to 0s.; ditto ditto (Red Mould), 70s. to 75s.; Scotch Cups (Perth and Fife), 50s. to 60s.; ditto (North Country), 40s. to 50s.; Irish Kemps and Clusters, 0s. to 0s.; ditto White Rocks, 60s. to 0s.; ditto common Whites, 0s. to 0s. per ton.

POULTRY.

The gradual approach of the season, when scarcity begins to be felt, has caused a slight rise in price during the last week.

Cock Turkeys ... 12s. to 14s. each.	Teal	2s. 0d. each.
Hen Ditto ... 7s. to 8s. 0d. "	Woodcock	4s. 6d. to 5s. "
Large Fowls 5s. 6d. to 6s. 6d. "	Snipes	2s. to 2s. 3d. "
Smaller do. 3s. 9d. to 4s. 3d. "	G. Plover. 1s. 9d. to 1s. 10d. "	
Chickens... 3s. 0d. to 3s. 3d. "	Rabbit... 1s. 4d. to 1s. 5d. "	
Goslings... 7s. 6d. to 8s. "	Wild Ditto	10d. to 1s. "
Ducklings 3s. 9d. to 4s. 0d. "	Pigeons... 1s. 0d. to 1s. 1d. "	
Wild Ducks 2s. 3d. to 2s. 6d. "	Larks	2s. to 2s. 3d. per doz.
Guinea Fowls. 3s. to 3s. 6d. "		

PROVISIONS.

The following are the quotations:—

BUTTER.—Cwt.	Short middles.....	0s. to 0s.
Cork.....	92s. to 110s.	
Limerick.....	95s. " 104s.	
Carlow	100s. " 110s.	
Sligo	94s. " 102s.	
Carriack.....	108s. " 112s.	
Waterford	100s. " 110s.	
Holstein	108s. " 116s.	
Friesland	116s. " 120s.	
HAMS.—Cwt.	Irish.....	84s. to 90s.
Westphalia	94s. " 104s.	
LARD.—Cwt.	Bladdered	74s. to 78s.
Kegs.....	66s. " 70s.	
P.M. beef (304lb.)	115s. " 0s.	
P.M. pork.....	97s. 6d. " 0s.	

BACON.—Cwt.

Waterford sizeable	56s. to 61s.
Heavy	55s. " 56s.
Limerick sizeable ..	0s. " 0s.
Hambro'	56s. " 58s.
Bale middles	56s. " 58s.
Tierce middles	0s. " 0s.
American—	
Singed sides	56s. " 58s.
Boneless middles ..	58s. " 0s.

CHEESE.—Cwt.

English, New Cheshire, 70s. to 84s.	
Cheddar.....	74s. " 90s.
Gloucestershire, dble. 66s. " 72s.	
Ditto, single	60s. " 70s.
Foreign—	
Edam	58s. " 62s.
Gouda	50s. " 56s.
Kanta	27s. " 28s.
American	56s. " 62s.

MEAT.

Beef.....	s. d. 3 0	s. d. 4 4	s. d. 4 8	Veal.....	s. d. 4 10	s. d. 5 4	s. d. 5 8
Mutton	3 6	4 8	4 10	Pork.....	4 0	4 6	4 10

BREAD.

The price of Bread in the City and at the West End is still maintained at 9d. to 10d. the 4lb. loaf, but in other places the bakers are selling the best bread at 8½d. while in the cheap neighbourhoods they profess to sell at 8d.

TO CORRESPONDENTS.

LIVERPOOL POULTRY SHOW.—"In a report you give of the Liverpool Show, in your last Number, signed M., in speaking of the *Silver-pencilled Hamburgs*, the report says,—Mr. Dixon, of Bradford, received only second honours (that unfortunate Birmingham judgment being again corrected). Now, the party who supplied that report is wrong, when he states that the Birmingham judgment was corrected; for the Fowls I showed at Liverpool were not the same I sent to Birmingham. It is quite true, Mr. Archer was first at Liverpool, and myself second, and *vice versa* at Birmingham. I shall be glad if you would insert the above in the next Number of *THE COTTAGE GARDENER*. As the paragraph stands in last Number, it casts a reflection upon the Birmingham Judges, which, in this case, is not their due.—JAS. DIXON."

BOOK ON POULTRY (A Yorkshire Subscriber).—Buy "The Poultry Book." We hear that a second edition is about to appear under the supervision of Mr. Tegetmeier.

BREEDING FROM A FRESH COCK (Subscriber).—You cannot be sure that the eggs laid by your hens will not partake of the characteristics of the old cock, until they have ceased associating with him for three weeks.

GOLD FISH IN A GLASS VASE.—"An Admirer of these beautiful fish would feel obliged by any correspondent giving his or her experience on their treatment in a glass globe. Some of the young fish were procured from a pond in which a great number were kept, and were put into a large vase, and supplied every morning with fresh pipe-water, and sometimes fresh rain-water. They lived for four months, and seemed very healthy, brisk, and lively, till what appeared to be a distemper broke out among them in the form of a white, woolly, fungous substance spreading over their bodies; at the same time, the fine membrane of the tail separating into threads, and finally rotting away, at which period the fish died. The one on which the disease first appeared was removed from among the rest, but still it spread, and most of them are now attacked and are dying very fast. In answer to a correspondent, at page 245 of the July Number, a little cooked meat was recommended every second day. This was given them, and they devoured it greedily; but it was discontinued at the suggestion of some friends who considered it injurious. During the winter months the water was chilled, and they were kept in a warm room at night.—F. P., Dublin."

We shall be obliged by communications on the keeping of Gold Fish.

BARLEY SUGAR FOR BEES (A young Bee-keeper).—Barley Sugar requires no preparation when given to Bees. We should certainly prefer honey for them if we could get it at the same price that we had to pay for Barley Sugar. Mr. Taylor's "Bee-keeper's Guide," price 4s., is the best work. We do not know the price of the other work you mention, but it is a shilling or eighteenpence less.

NEGLECTED PEAR, PLUM, AND CHERRY TREES (H. H.).—As they are so weak, and the young shoots are decaying, it is very evident that there is something wrong at the roots, as the trees are only nine years old. Probably the borders have been heavily cropped and dug so as to destroy the surface roots. We should manure the surface only just pointing in the manure with a fork. Liquid-manure, as you propose, might be a temporary assistance, given once a week.

MELONS FOR PRESERVING WHOLE (A new Subscriber).—*Queen Anne's*, or, as it is sometimes called, the *Early Queen*, is the small Melon which would suit you. It is yellow, and weighs less than a quarter-of-a-pound when full grown.

GAS TAR AS A PAINT (Mixture).—Fat is used with Stockholm Tar to give it a glossy face. We do not know whether it will answer with Gas Tar. Will some of our readers inform us on this point?

ERROR.—Page 241, col. 2, line 11 from bottom. Mr. Ferguson writes as follows:—"For 'Fish' read 'Rivers,' not 'Ferguson,' as stated in your Answers to Correspondents. Clod-hopper's boots, in my opinion, would be quite as apropos for the Queen to open a ball in with an Emperor, as to use boxes at 30s. each, to grow Peach-trees in houses constructed with boards and covered with tar.—D. F."

HEATING BY GAS.—Mr. Vincent Litchfield, Twickenham, would suggest that your correspondent, "T. W.," should *certainly not adopt* any plan but that of a *gas-heating apparatus* for his greenhouse. Mr. L. would recommend that the house be *built*, and he will be very happy, at a future time (and that very shortly), to indicate the mode by which it can be treated with the *greatest cleanliness*, and the much less than usual expenditure of time and money to keep it always in a condition to be set in action in one moment. This will also apply to "L. R. T.'s" query in yours of 8th January.

PROPAGATING CASE (Verax).—We forwarded your note to Mr. Beaton, and this is his reply:—"VERAX is a true English gentleman, and I would rather do anything than lose his good opinion. Besides, he lives in a part of England where they make the finest cider in the world, and where the lowest servant on the farm might be said to be a 'perfect gentleman,' for he drinks like a lord. Therefore, seeing that we are on disputed ground, I wish for a 'rectification' of the 'boundary line' between us in a 'peace convention.' The boundary line between us begins in the north-west corner of the territories watered by *THE COTTAGE GARDENER*, and runs in a south-east direction to the Gulf of Pugibundus. On one side of this line I claim every word as my property, of all that ever appeared in *THE COTTAGE GARDENER* about Mr. Walton's propagating case; and I hereby totally deny that the 'inventor' ever wrote a syllable on the subject in these pages; therefore, I must not allow him to be made a 'sick man' of in this off-hand manner. There cannot, by any possibility of logic, be a 'glaring error,' or an error not glaring, where the 'inventor' never wrote a line on the subject. If any reader of *THE COTTAGE GARDENER* will point out the page, or number, in which the inventor, or the writer, said, or even hinted, at the eight hours, the colza oil, the price of oil, or any other of the items, covered by the 'glaring error' mentioned by 'VERAX,' I shall send him a 'complete' case, fit for working order, 'gratis.' I even challenge 'VERAX' himself for anything of the sort. Why, then, does he throw cold water on the invention? It is unfortunate that 'VERAX' should have made that unfounded charge against Mr. Walton at the moment when I had the plans ready for the engraver—within ten days, let it be observed, of the very time, and the only time, I promised to do so.—D. BEATON."

GRASSES FOR OLD LAWNS.—Messrs. Sutton, seedsmen, Reading, have written to us follows:—"By referring to page 329 of *THE COTTAGE*

GARDENER you will see that the printer has placed the words *Trifolium repens* in connection with 'Yellow Clover,' instead of in connection with the 'White Clover,' which, doubtless, you intended it for, and to which it certainly belongs. The article by Mr. Beaton is, in every respect, so excellent, it would be a pity for any error to remain uncorrected, especially as those of your readers, who do not know the botanical names of the Clovers, might order *Trifolium repens* of their seedsman, and be disappointed."

VINE-BORDER (A Learner).—See an article on inquiries about Vines, in our last number, in which your case is pretty well met. We will only add,—See that the border, though inside and raised, is drained; raise the back of the border a foot or even more in height, sloping down to its present proposed height in front. This will enable the sun to exercise more power on the soil, the want of which is often a detriment to the plants planted inside, when other plants shade the soil too much. Plant against the back-wall, and train down the roof, and use either four or five plants, as you think proper. We do not expect that you will ever get much fruit from against the back-wall, and, therefore, if you could get plants high enough to reach the glass at once, it would be an advantage. All the buds, except one or two at the end, might be picked out, unless the plant was very strong.

PROPAGATING EPACRIS AND AZALEAS (G. W.).—The Epacris and Azaleas are propagated by cuttings; taking off the points of shoots, or small side-shoots, about one inch or one-and-a-half inch in length, just when the wood of the base of the cutting is getting firmish, and inserting them in silver-sand, in pots three-parts filled with drainage, and placing a bell-glass over them, and giving them a medium temperature of 60°. The Manetti Rose will strike freely, if the cuttings are planted under a hand-light in sandy soil, out-of-doors, or in any shady place, in summer and autumn, it strikes freely almost anywhere. The *Daphne indica* strikes from cuttings; but it is best grafted on the hardy *Daphnes*; the mode of doing so was lately alluded to. We cannot hear anything of the Apples and Pears.

HEATING A FRAME (C. T. J.).—We can see no reason why the plan should not answer well. For giving you a bottom-heat for cuttings, however, your pipe should pass near the centre of your beds, instead of near the outside, as represented. The Income Tax affair is another matter. Of course, after the spring, most propagating could be done in beds supplied with fermenting matter alone; but it will not be so cleanly as having heat from pipes. If the pipes are used, some rough, open matter should be placed all over and around them, and fine matter, such as sand or ashes, &c., on the surface. We are glad you are successful with gas, and will publish your description. We know nothing about the diseases of Rabbits.

SIZE (T. J.).—We have before answered this enquiry. It is a soft glue used by plasterers in their white-wash. It may be obtained of them or of any oil and colour dealer.

PROFIT FROM GARDEN (A. B., Inghridge).—As profit is your object and the garden extensive, you had better let it.

GLASS CASE (An Inquirer).—To each of your queries we need only answer—Yes—except to those which require the following answer:—The leaves of the plants must be about a foot from the glass. The dung chamber must be four feet deep.

MOWING MACHINE (P. B.).—Buy Budding's for a small lawn; and buy our No. 347 for fuller notes on the subject.

LONDON: Printed by HUGH BARCLAY, Winchester High-street, in the Parish of Saint Mary Kalendar; and Published for the Proprietors at THE COTTAGE GARDENER OFFICE, No. 20, Paternoster Row, in the Parish of Christ Church, City of London.—February 19, 1856.

Advertisements.

On the 29th of February will be published, Price Sixpence,
PORTRAIT GALLERY OF GARDENERS.

No. 5. DR. LINDLEY.

This is a reprint, on superior paper, of the Biographies in *THE COTTAGE GARDENER*, with extra fine impressions of the portraits on tinted paper.

The first four parts being—1. Sir Joseph Paxton. 2. Mr. G. Fleming. 3. Mr. Donald Beaton. 4. Mr. Veitch, sen., are reprinting.
London: COTTAGE GARDENER OFFICE, 20, Paternoster Row.

On the 29th of February will be published, Price Threepence,

GARDENING FOR THE MANY.

Being monthly directions, step by step, for the cultivation of each crop in the garden of the Amateur and Cottager.

By Contributors to *THE COTTAGE GARDENER*.

London: COTTAGE GARDENER OFFICE, 20, Paternoster Row.

CHEAP AND POPULAR SCIENTIFIC WORK.

On the 1st of March, Price Threepence, Number I., of

A Manual of British Butterflies and Moths. By H. T. STANTON, Editor of "The Entomologist's Annual."

This work will contain descriptions of all the British Species, with popular readable instructions where to find them and how to know them, and will be illustrated with numerous wood-cuts. To be completed in about Thirty Monthly Numbers. The first four Parts will comprise the whole of the Butterflies!

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WEEKLY CALENDAR.

D M	D W	FEB. 26—MARCH 3, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
26	TU	Podura viridis.	29.532—29.469	40—32	N.W.	04	55 a 6	31 a 5	11 57	20	13 15	57
27	W	Helophorus stagnalis.	29.811—29.602	42—37	S.	06	53	33	morn.	21	13 4	58
28	TH	Biston hispidarius.	29.777—29.737	50—29	S.W.	13	51	35	1 14	22	12 54	59
29	F	Silpha opaca.					49	37	2 31	23	12 42	60
1	S	Abraeus perpusillus.	29.625—29.527	53—39	S.W.	09	47	38	3m 44	24	12 30	61
2	SUN	4TH, or MIDLENT SUNDAY.	29.355—29.001	53—38	S.W.	23	45	40	4 49	25	12 18	62
3	M	Helophorus griseus.	29.434—29.803	50—30	S.W.	06	42	42	5 36	26	12 5	63

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 48.5°, and 34.4°, respectively. The greatest heat, 64°, occurred on the 28th, in 1846; and the lowest cold, 18°, on the 3rd, in 1854. During the period 107 days were fine, and on 89 rain fell.

At page 416 of our last volume, after stating what we considered common sense adjudged to be a gardener rendering his employer liable to pay the tax assessed upon such a servant, we added—"but there are so many finely-drawn distinctions, that we advise that an attorney be consulted." That we were right in such advice is evident from many cases which have since occurred, for we thought, and we still think, that if the tax be paid by a gentleman upon his head and under-gardeners—and we considered, and still consider, under-gardeners to be such men of skill as are capable of entirely managing a garden in one or all of its departments—that the employer has been taxed to the extent that reason and the legislature intended. In such opinion we have been mistaken. The words of the Act (16 and 17 Viet. c. 90) are as follows:—"The said duties on Gardeners (£1 1s. if above 18 years of age, and 10s. 6d. if under 18) shall extend to every gardener who shall have contracted for the keeping of any garden or gardens wherein the constant labour of a person shall be necessary, or when a person shall have been constantly employed therein, to be paid by the person for whose use and in whose garden such gardener or person shall have been employed; provided that no person shall be deemed a gardener unless the whole or the greater part of his time shall be employed as a gardener in a garden requiring the greater part of the labour of one person; provided also that any person employing any under-gardener shall be chargeable for such under-gardener at the rate of 10s. 6d. only."

This is all sufficiently unprecise, for according to its wording, a woman, for the term "a person," includes such, "shall have been constantly employed" in a garden, she is within the words of the Statute!

The most common doubt, however, has arisen upon the question, "What constitutes an under-gardener within the meaning of the Statute?"

We have given what we consider the correct definition, but grave judges of our highest Courts of Law have decided otherwise, for in one of the following cases, a man employed under a head-gardener, though "paid weekly wages at the rate of common agricultural labourers of the district," and "knowing nothing of the management of a garden," is an under-gardener, and liable to the half-guinea tax.

We are indebted to the *Gardeners' Chronicle* for the three cases which follow:—

No. I.—At a meeting of the Commissioners of Land and Assessed Taxes held at Hammer for the Division of Maylor, in the County of Flint, on the 4th day of September, 1854, for the purpose of hearing appeals against first assessments of Assessed Taxes for 1854.

SIR JOHN HAMMER, Baronet, appealed against assessment made upon him for two under-gardeners. Appellant stated that he only kept one gardener, at an annual salary, and that the other two men employed by him in his garden were labourers not in receipt of annual salaries, but paid weekly wages at the rate of common agricultural labourers of the district; consequently, he contended, they were not under-gardeners under the meaning of the Assessed Tax Act of last session. Appellant is assessed for one gardener and two under-gardeners.

The surveyor objected and stated the labourers in question were in his opinion assessable as under-gardeners.

The Commissioners relieved appellant from assessment, and the surveyor demanded a case for the opinion of Her Majesty's judges, which we have stated and signed accordingly.—*Joseph Lee, Thomas W. Lee, Commissioners.*

JUDGMENT.—We are of opinion that the determination of the Commissioners is wrong.—*Wm. Wightman, T. J. Platt, Samuel Martin.* 14th December, 1854.

No. II.—At a meeting of the Commissioners of Land and Assessed Taxes, held at the Crown Hotel, Faringdon, on the 30th September, 1854, for the purpose of hearing appeals against the first assessments for the year 1854-5.

THE RIGHT HONOURABLE VISCOUNT BARRINGTON appealed against a charge made on him for four under-gardeners, whom he considered as labourers, and who were engaged in the garden assisting, and under the management of the gardener; they were paid weekly wages, knew nothing of the management of a garden, and were frequently changed in the summer months, and therefore could not be termed under-gardeners as meant by the act of Parliament, but that under-gardeners were persons skilled in gardening, and who might take upon themselves the charge of a garden in the absence of the head-gardener.

Mr. Webber, the surveyor, contended that as these men were employed in the garden, lawn, and shrubberies, under the direction of the head-gardener, they were assessable as under-gardeners at 10s. 6d. each, but we, the majority of the Commissioners present who heard the said appeal, being of his lordship's opinion relieved him from the charge. The surveyor being dissatisfied with the decision requested a case for the opinion of Her Majesty's judges, which we hereby state and sign accordingly.

The same case will govern the charge made upon SIR ROBERT THROGMORTON, Baronet, who was relieved by the Commissioners from four under-gardeners.

Given under our hands this fourth day of December, 1854.—*G. Butler, George Mantell, Thos. Belcher, Geo. F. Crowdy, Commissioners.*

JUDGMENT.—We are of opinion that the determination of the Commissioners is wrong.—*Wm. Wightman, T. J. Platt, Samuel Martin.* 14th December, 1854.

No. III.—At an adjourned meeting of the Commissioners of Assessed Taxes for the hundred of Wootton, in the county of Oxford, held in the Town Hall, in Woodstock, in the said district, on Wednesday the 26th day of Sep-

tember, 1855, before us the undersigned Commissioners of Assessed Taxes for the said district:—

Timothy Abraham Curtis, Esq., Agent to his GRACE THE DUKE OF MARLBOROUGH, appealed against an assessment of a charge for nine under-gardeners.

He contended that the Duke was not liable, inasmuch as they were not the servants of the Duke, but merely labourers, hired, employed, and under the sole control of the head-gardener in the public and private pleasure grounds at Blenheim, who by an agreement,* dated 3rd March, 1842, is bound to keep such gardens in order for the sum of £200 per annum, exclusive of his salary of £60 per annum.

Mr. Curtis contended that the Duke could only be called upon to pay duty for the persons he employed, and not for those employed by the head-gardener.

William MacMorran sworn:—I am head-gardener of the public and private pleasure gardens at Blenheim.

Q. State the number of persons employed by you as under-gardeners.

A. I employ nine men in the summer, six in the autumn, and four in the winter. The average number of boys I employ is about six—age from about ten to twelve years, at 6d. and 4d. per day, some 8d., only big boys at 8d. per day. I agree to keep both gardens in order for £200 a year. I have sometimes nine men and six boys employed at the same time.

Q. State the acreage of the gardens.

A. I cannot say with certainty. I should say about sixty acres. The Duke has full power over all the persons employed in the gardens.

The Commissioners being of opinion that the contract with the head-gardener did not interfere with the Duke's liability, *confirmed the charge*; but the Duke being dissatisfied with their decision, demanded a case for the opinion of Her Majesty's judges upon the following grounds:—

Firstly, that William MacMorran, my gardener, having contracted with me for a certain fixed sum for the maintenance and due cultivation of my pleasure gardens, and the labourers employed by him under that contract being his servants and not mine, I am not liable to any tax for under-gardeners, and therefore claim exemption. But if the judges should decide that I am liable to the tax on under-gardeners, then—

Secondly, I appeal against the stated number of nine, as according to the average number of persons employed during the year it appears that the number does not exceed six.

The case is hereby stated and signed accordingly.

Given under our hands this 20th day of October, 1855:—
Charles Cottrell Dormer, John Lechmere, J. Burrows, Commissioners.

JUDGMENT.—We are of opinion that the determination of the Commissioners is right.—*E. H. Alderson, T. J. Platt.*
6th December, 1855.

THE ANNIVERSARY MEETING of the ENTOMOLOGICAL SOCIETY was held on the 28th of January, the chair being occupied by Mr. Edward Newman, F.L.S., the senior Vice-President. A report from the Council was read, giving an account of the prosperous state of the Society, and containing a proposition for the sale of the exotic portion of the collections of the Society, in order,

* Copy of an Agreement between the Duke of Marlborough and William MacMorran.

Blenheim, 3rd March, 1842.

I agree to serve the Duke of Marlborough as gardener, and to undertake the care of the public and the private gardens at the annual salary of sixty pounds, to commence from the first of September last, being allowed to retain all fees for showing the gardens if they exceed that sum, and having the salary made up to that sum if the fees fall below it; and being also allowed a house rent-free, firewood, and vegetables as at present; and I undertake to keep and render, when required, an accurate account of the fees. I also undertake for the sum of two hundred pounds a year from the first day of September last, to be advanced by the Duke for labour, to expend that sum in keeping the public and private gardens in a perfectly neat state and proper course of cultivation.
(Signed) W. MacMorran.

with the proceeds, to increase the library, and to render the collection of British insects as perfect as possible. This proposition was opposed by Mr. Westwood, who contended either that the whole or no portion of the collections ought to be sold. He had considered, from the first establishment of the Society, that the keeping up of a collection was injudicious, as requiring an outlay for cabinets, house room, and curatorship, which would be much more usefully applied in extending the library and publishing the Transactions. He had, accordingly, proposed the sale of the whole of the collections at a previous meeting of the council, but had failed in carrying his motion. He, therefore, now moved, that as the Society had been founded for the study of Entomology in general, and not of British Entomology exclusively, that the exotic portion of the collection should be maintained as well as the British. A majority of the members present, however, adopted the view of the Council, whose report was carried. It is intended, however, that a general meeting of the Society shall be called, to express their opinion on the subject.

Messrs. Newman, A. F. Sheppard, Edward Sheppard, and Waring, were removed from the Council, and Messrs. Baly, Pascoe, Saunders, and Waterhouse, elected in their stead, and W. W. Saunders, Esq., F.L.S., was elected President for the ensuing year, in the stead of Mr. Curtis, resigned, to whom a vote of thanks was passed, and a portrait of whom was ordered to be suspended in the meeting-room.

Mr. Newman delivered an address on the state of the Society, and on the progress of Entomology in England during the past year, which he was requested to have printed for distribution among the members.

The ordinary meeting of the Society for February was held on the 4th instant, the newly-elected President, W. W. Saunders, Esq., being in the chair. The Chairman briefly returned thanks for his election as President, and nominated Messrs. F. Smith, G. R. Waterhouse, and J. O. Westwood, to act as Vice-Presidents for the ensuing year. A new part of the Society's Transactions was announced as ready for distribution.

Mr. Samuel Stevens exhibited some very fine species of Beetles received recently from Borneo, including some new and rare Stag Beetles.

Mr. F. Moore exhibited some earthen cases formed by a wild Bee (*Megachile lanata*), within the hollow of a buffalo's horn, recently received by the East India Company, from Northern India. The insect had evidently taken advantage of a cast horn to form its nests in the hollow part.

Mr. Baly exhibited a specimen of the very rare Beetle (*Cryptonychus porrectus*), from old Calabar, received by A. Murray, Esq., of Edinburgh.

A note from Mr. Hewitson was read, giving an account of the creaking kind of noise made by a specimen of the Peacock Butterfly, which had been disturbed in its hybernating quarters. A similar circumstance had been recorded, three years since, by the Rev. Joseph Green, in the Society's proceedings. It was suggested that the noise was formed in connexion with

the act of respiration, which had been suddenly increased by the insect being awakened from its winter sleep.

Mr. Newman read a note requesting information concerning a Spider, described by the Rev. R. Sheppard, as forming a kind of raft on which it floats about in search of prey in the ditches of Norfolk. (Kirby and Spence Introd. Vol. 1). He also read a note on the Silk Spider in St. Helena, from Foster's Voyage. Also, descriptions of five new species of insects (two Beetles, one Butterfly, and two Flies), from Morton Bay, North Australia, collected by Mr. Gibbon.

Mr. Stainton read some remarks as to the most efficient methods of promoting the study of Entomology, suggesting the especial advantage of observers confining their attention to single families or genera.

ORCHARD-HOUSES.

A GENTLEMAN, signing himself "ONE OF THE FIRST SUBSCRIBERS TO THE COTTAGE GARDENER," desires my opinion as to Orchard-houses, and thinks that I might step in and offer an opinion, as to whether A, or B, or C, are right. I will here endeavour to say something about them; but without, for a moment, expecting to settle the question; as it has been already in hands which should know how to write efficiently upon the subject. Moreover, it is very probable, that the great goddess of Fashion, whose power is felt over every new notion, will, for the first half-dozen years, rule the question, after which it may, as is very usual, fall into the hands of Common Sense.

It is not unlikely, that some of our readers who feel warmly on the subject might desire to see a battle of opinions on this affair; but the worst of it is, that this seldom benefits any parties but the stationers. Messrs. Fish, Ferguson, and Rivers, have, I am aware, said a good deal about Orchard-houses; but I must confess to such a light reading of their papers, as by no means qualifies me to advert to their points; and, indeed, it is sometimes a not-very-pleasant task for a writer to be obliged to read *his own copy*. But I will, at least, deal with a few of what I consider the prime features in the affair; and I would beg to direct attention to the different phases in which the subject ought, as I think, to be viewed.

1. Will such houses pay their way?
2. Will they succeed permanently?
3. Is any special preparation requisite in order to carry out a successful course of culture?

As to paying the cost of building, labour, &c., I suppose we must lay aside all commercial ideas, and place the Orchard-house in the category of ordinary gardening matters; and, indeed, how is it likely that the whims of gardening should ever produce such a balance sheet as the market-gardener requires?

We, at once, come to the reason why they never can, as I think, become profitable, on account of the severe competition they will have to undergo—in two ways, particularly. In the first place, the importation of good and choice fruits is, doubtless, on the increase, or soon will be; for steam transit reduces the distance to a mere trifle; and our neighbours are evidently on the advance, and learning to take advantage of climate. In the second place, the out-door culture of choice fruits in Britain has been exceedingly extended during the last few years, and not only extended, but highly improved modes of culture introduced, which improvement, too, is widening still. Other arguments there are; but there is little occasion to dwell on this portion of the subject.

Our second inquiry was—Will they succeed perma-

nently? By which, I mean—Will they produce very tender fruits in higher perfection than the natural climate? to which I would answer, Yes, provided the proper appliances are judiciously given. It may be observed, also, that under proper regulations they may be made a means of both forcing and retarding certain fruits. But all this so opens the question as to offer many grave points for consideration. I care little about much debating over forms. When I build one, it shall, probably, be either on the span-roof principle, or one of those compact, old-fashioned houses, with what are called north lights; the latter, perhaps, bearing the proportion of one-third. If a merely equal span-roof, it should run north and south.

But there are several collateral considerations, which, although at first sight of minor importance, yet assume a different character when more closely examined. Of course, roomy pots must be provided, and those adapted to occasional shifts. One consideration, too, is this,—How long may we expect a given tree, say, a Peach, or a Pear, to endure, and produce fine crops, under any pot system of culture? We all know, who know any thing, in reality, about fruit-culture, that liquid-manures are of immense importance as to sustaining a tree a longer time than under ordinary circumstances. We also know the value of sound, turfy loams, or maiden soils, in contributing both to health and durability.

Under the happiest combination of favourable conditions, nevertheless, I do not believe that we could count on a profitable durability of more than about four years, or four crops of fruit; and if this be near the mark, it becomes us to inquire, what is done with them when they become exhausted? I am well aware that uses could be found for them, and that it may be said, "Oh! it does not signify, the gardener can graft plenty more, &c., &c." Now, gardeners can, of course, graft, bud, propagate, save their own seed, and I do not know what; but let it be remembered, that all additions of this kind have a tendency to compromise the welfare of the other departments. My object, it will be seen, is to deal frankly with the affair, and to show, that in the aggregate these houses will assuredly increase labour. Those who commence, therefore, Orchard-house culture to any extent, should count well the cost, and properly view the subject, or they may be baffled, although they get some good fruit. A house of this kind, of some extent, attached to a *garden establishment*, will have to play occasionally into the hands of the garden structures, and will, therefore, form part of a system.

Nurserymen's Orchard-houses assume at once the character of a trade affair, and may not be allowed to bias the consideration of this matter as a gardening question. It will, doubtless, be thought by many who may possibly read these notes, that I am one who would crush all progress, and that I fancy it impossible to succeed with fruit-trees in pots. I beg at once to disavow such notions: they do not belong to me. I would merely, whilst we are on the threshold of the question, respectfully request a *full* consideration of the whole matter, and not take our steps at random.

As to the difference between Tweedledum and Twedledec, with regard to the precise character of the angle of the house; a little hair-splitting, also, about forms, &c.; I do not feel at present disposed to say much: as the matter ripens, I shall, certainly, attempt to say more. Whether the house should have a hedge at back, or boarding, or one of our old-fashioned brick walls, must be settled by the breeches' pocket, I suppose. In all these cases, I do think it is best, in the end, to have work of the kind done substantially; the first cost is least, according to a trite saying, providing that the plans have been well conceived and economically carried out.

The most abundant degree of ventilation should be

provided. There must be no coddling here; and, in the event of a lean-to house, with a north light, it would be well, in all probability, to have the south front of the roof glazed with rough plate glass, and the north light with clear sheet.

On the whole, then, I must say, that for the affluent, and those prepared to meet whatever difficulties the case may present, Orchard-houses, certainly, offer a chance of carrying out some of the special objects of the fruit cultivator, in a most satisfactory way, as to the qualities of the dessert. Whilst saying this, however, I do not wish it to be supposed that I would narrow the question as to the form of the structure. Those who have, as yet, had only one idea about an Orchard-house, had better go to Trentham and see what Mr. Fleming has done—he has fairly broken the old trammels.

I may just observe, before I conclude my loose remarks, that if any person should try to persuade us that trees may be profitably kept in pots—holding less than a barrowful of soil—for many years; why, then, there should, indeed, be a revolution in what is called “border making;” and even my poor platform mode, with its half-dozen barrows of soil, will come to be counted a most extravagant procedure. R. ERRINGTON.

VANDA CÆRULEA IN BENGAL.—“Near the village of Lernai, Oak woods are passed, in which the *Vanda cærulea* grows in profusion, waving its panicles of azure flowers in the wind. . . . We collected seven men’s loads of this superb plant for the Royal Gardens at Kew; but, owing to unavoidable accidents and difficulties, few specimens reached England alive. A gentleman, who sent his gardener with us to be shown the locality, was more successful: he sent one man’s load to England, on commission, and though it arrived in a poor state, it sold for £300; the individual plants fetching prices varying from £3 to £10. Had all arrived alive, they would have cleared £1000. An active collector, with the facilities I possessed, might easily have cleared from £2000 to £3000 in one season, from the sale of Khasia orchids.”—(*Hooker’s Travels in the Himalaya.*)

A WEDDING-BREAKFAST.

No one need wonder that I should be commissioned by his Reverence the Warden of Christ’s College, in Tasmania, to send him European trees and shrubs, to remind him of early associations; but who will not wonder that I should be consulted about the arrangement of flowers for a wedding-breakfast room in London? Yet so it was, on a recent happy occasion. Your humble servant was invited first to a conference; and at the conference the breakfast-room was mapped, the number of guests settled, and the most appropriate plants and flowers for that room, on such an occasion, together with the wedding nosegays, the bouquets for the table, and the kind of dessert, were all fixed and determined on a grand scale. No names, of course, may I mention; but, as these preliminaries must be gone through, on some scale or other, on all such occasions, there can be no harm in hearing how such things are managed occasionally in high life.

The first thing to be considered, when a room is to be decorated with flowers for a particular occasion, is to glance over the room itself, so as to fix on the most prominent places for the flowers to stand on for the best effect, without being, or appearing to be, in the way of anybody. What would be a good arrangement in one room might be altogether out of place in another room; so that nothing would be learned from knowing how this particular room was decorated.

The kinds of plants must be selected according to the time, or the season of the year, when they are in bloom; but it is in harmony with the “occasion” that two-thirds of the flowers should be white, and that the rest should be from blush to crimson, through all the shades of salmon, pink, rose, and scarlet: no yellow or blue flowers for a wedding; to say nothing of yellow stockings and blue stockings, blue and yellow are political badges in England, and therefore out of place where “Whigs and Tories all agree,” as they should do, at a wedding.

The beginning of February being the time for this wedding, the chief flowers in season were *Camellias* and *Epacrises*, which of themselves give all the colours for a wedding, and none against it. *White Cinerarias* and *white Chinese Primroses*, single, double, and double white-fringed, forced *Deutzia gracilis*, which the unlearned mistake for Orange-blossoms in the wedding nosegays, and to which the unscrupulous dealer assents with “so be it.” *Dielytra spectabilis* never looked better than at that wedding, nor all the *Cyclamens* either. The *Christmas Rose* and the crimson *Hyacinth* were in good contrast. The blush, single and double *Hyacinth*, and the white varieties of the same, with all the rest in the same style, were placed in half-circular groups on stands nearly breast high, which stands supported tall looking-glasses between the windows along one whole side of the room, which was sufficiently large to breakfast fifty persons, the number to assemble on that morning.

The pots, or, rather, the half circles of pots, were covered with moss, which you can get more green and fresh in London than elsewhere. After that, the surface of all the moss was nearly covered with cut flowers, the flower-stalks being simply stuck in among the moss, down to the surface of the stands on which the whole stood. The reflection in the looking-glasses made whole circles of flowers, and looked extremely well, giving a more agreeable form, besides doubling, apparently, the number of flowers. On each of three of these stands (the three middle ones) were to be placed two gold stands, to hold the six bouquets of the bride’s maids. The bride’s bouquet was to be in another gold stand, at the head of the breakfast-table, in front of the wedding-cake.

The breakfast-table was in the form of the letter T, with the corners of the cross table at the top rounded off; on this cross table stood the wedding-cake, in the centre, in a large silver dish; and on each side of it, and half-way between it and the ends, stood two large, handsome bouquets, eighteen inches in diameter each, in gold stands thirty inches high. A third bouquet, of the same size, and on a similar stand, stood on the centre of the long table; and a dessert group, also in a gold stand to match, stood on each side of this bouquet, and half-way between it and the ends of the long table. The gold stands for the bouquets were like the stand of a reading-lamp, but more massive, with a gold basket on the top of the stand. Three ecclesiastics stood at equal distances round the plinth of the stand, with their heads nearly touching the bottom of the basket. They were thus in better taste than you often meet with in such compositions: the more usual designs make these figures, even if they are heathen gods, no better than apple-women in Covent Garden, by placing the golden baskets right on their heads. A “milk-maid” in a landscape by Landseer, with a milk-pail on her head, would be in good keeping; but the idea has been sadly outraged of late years; and Mr. Gunter, who supplied those stands and the breakfast, shows better taste.

A vessel in the form of a paint-pot—the best form of all for such a purpose—was used to hold the large bouquets in the gold baskets, and the said vessels were hid in moss. Table-bouquets are easily made to any size in such vessels. Gather your flowers with long stalks; make the first or bottom row *rest on the edge* of the

vessel all round, the bottom of the stalks pressing against the opposite side. This is all the secret. If the vessel was a flower-pot shape you could not get the support at the bottoms of the stalks, and, consequently, the bouquet could not be made so largo, and wet sand would not support such a weight; yet it is best to have the paint-pot-like vase full of damp sand; then, when you are forming the more perpendicular portion of the bouquet, the sand will hold the stalks easily enough.

A clean paint-pot is just as good as a gold pot for these bouquets, because it must and ought to be entirely hid. You may learn to make such bouquets by using common evergreens, without any flowers at all; and when you can form one quite round and raised to the centre, just like a good Dahlia-bloom, you are fit to be trusted with flowers for the same purpose.

The dessert was in two groups, as high as the bouquets, and on similar stands, except that on the tops, instead of the basket, there was a eup, of a flower-pot form, to put the fruit in; and there was a tube through the centre of the flower-pot, to hold the stalk of a Pine-apple, with which each group was crowned. There were four bunches of grapes, two and two crossways, the stalks fastened inside the eup, and the bunches hanging down outside, leaving an open space between every two bunches. In one group these spaces were filled in with two apples, with an orange over them; the others with two oranges, and an apple over them; and in each group there were four pears fastened, or, rather, fixed, over the shoulders of the bunches of grapes, the small end of each Pear down near to the Grapes, and the broad end up to near the bottom of the Pine-apple, with the exception that moss was used, instead of green, healthy leaves, to embosom these groups, so to speak. It was a very handsome way of arranging the dessert, and well worthy to be copied.

The wedding-cake was, in shape, like three cakes one over the other; the lowest might be thirty inches across; the next a little less in diameter; and the third less still, the outsides being wreathed with flowers, rosettes, and leaves, very tastefully. Over these cake-terraces was erected a dome-covered temple, resting on eight pillars. The workmanship of the whole was exceedingly beautiful; but, with due deference to Mr. Gunter's taste, the design was faulty, to say the least of it,—a pagan temple over a wedding-cake, in these days, was out of place certainly. Who will supply the more appropriate emblem? Several have been suggested to me, with a request to publish these notes.

D. BEATON.

PLANTS THAT MAY BE IN BLOOM IN FEBRUARY.

If our readers will turn to the list given at page 292, it will alike save space and a mere repetition. Of these, most likely, the *Bilbergias* will be over, and will require a short rest before growing them by means of applying more heat and moisture. *Cypripedium insigne* will also, in most cases, be finished. The *Epiphyllums* will also require to be cleared of all their dead blooms, cleaned, and set in the sunniest place possible. *Justicia speciosa*, *carnea*, *formosa*, &c., will require cutting back to the lowest buds when done flowering, or the old plants may be thrown away when cuttings are striking. *Spermatodictyon azureum* should also be pruned well back as soon as the flowers are gone. *Bulbs*, *Cinerarias*, &c., will want changing; and flowering *Perpetual Carnations*, *Camellias*, *Chinese Primroses*, &c., will be benefited by manure-waterings. With these exceptions alluded to, the following may be added to the list:—

STOVE PLANTS.

Achimenes pieta; *Begonia auriculiformis*, *nitida*, and

Ingramii; *Clivia nobilis*; *Conoelinium Ianthemum*; *Cypripedium venustum*; *Dendrobium speciosum*; *Goodyera discolor*; *Gesnera elongata*; *Franeisea calycina*; *Himantophyllum*, or *Imatophyllum miniatura*; *Rogeria cordata*; *Senningea floribunda*; *Rhynchospermum jasminoides*.

GREENHOUSE PLANTS.

Add, *Acacia ureinata*, *floribunda*, *grandis*, *Drummondii*; *Azaleas*, white, *exquisita*, *Perryana*, *triumphans*, and other good kinds, forced; *Brachysema latifolium*, *undulatum*, *villosum*; *Boronia pinnata*. *Cytisus filipes*; *Epaeris impressa*, and varieties, including some twenty or thirty kinds; *Erica transparens*, *rubra calyx*, *vernalis*; *Gnidia imberbis*; *Hovea purpurea*; *Pimelia decussata*; *Selago distans*; *Salvia gesneræflora*. Of some of these I will now write a few hasty notes.

ACHIMENES PIETA.—Though this can be had in bloom at any time, its beautiful foliage is so easily injured by the smallest quantity of steam, or the strong sunlight, that it generally appears to most advantage in the early spring and the late autumn months. Tubers started in the autumn will be coming beautifully into bloom now. They require, in other respects, to be treated like *Achimenes* in general, the treatment of which was lately given.

CLIVIA NOBILIS.—Though I have placed this plant in the stove, it will keep much longer in a warm greenhouse, and merely wants extra heat to encourage growth shortly after it has finished blooming. It is rather a rough-looking plant, with its strong, sedgy leaves, when not in bloom; but the strong flower-stalks, and the bunch of nodding, red and yellow flower bells at the top, are interesting and singular, if not beautiful. It thrives best in fibry loam.

CONOELINIUM IANTHEMUM produces large corymbs of blue flowers, something in the way of an *Ageratum*; but the stems are more woody, and the leaves quite as large. Easily propagated by cuttings. The plant should be freely pruned when done flowering. It grows in loam and peat freely, and requires stove-treatment only in the winter and early spring months.

CYPRIPEDIUM VENUSTUM requires much the same treatment as *insigne*; but needs more attention to drainage, and richer soil. Frequent surfacings of old cow-dung and rich leaf-mould secure healthy foliage and strong flower-stalks.

DENDROBIUM SPECIOSUM.—I mention this here for two purposes. First, to endorse what Mr. Appleby said lately of its *hardiness*, as I have twice flowered it very satisfactorily in a cool house; and to mention that there is a fine specimen of it shewing bloom, that promises to come very strong, at Mr. Veitch's Exotic Nursery, at Chelsea. I know many who have discarded this old plant as worthless; but I shall be greatly mistaken, if, when that plant is seen in its full beauty, it does not produce a demand for it again, even by those who had denied it the privilege of standing room. If this plant requires a higher temperature than a warmish greenhouse at any time, it is for short periods after it has done flowering, and when coming into flower. A fair amount of water in summer, and next to none during winter, in unison with a temperature ranging from 45° to 50° in winter, are the essentials of success. Suppose a beginner has a nice little plant sent to him; let him choose a suitable-sized pot, and fill it more than half-full with drainage; choose a small block of old oak-wood that will go across the pot inside, and sunk half-an-inch from its rim. To this piece of wood fasten the plant, and pack all round, so as to leave a little mound above the pot, with rich, fibry peat in pieces, along with chopped sphagnum and pieces of charcoal.

GOODYERA DISCOLOR.—A low-growing ground Orchid

of easy cultivation, with stiffish, reddish leaves close to the surface of the soil, and producing abundantly flower-stalks with creamy-white little flowers, forming no bad substitute or companion for the Lily of the Valley. Propagated by division of the roots. The main points of culture are thorough drainage, rich peat, a little dried leaf-mould, and a little fibry loam, kept open and porous with pieces of charcoal and half-decayed wood. Temperature in winter from 55° to 65°. It should receive less water by the end of October, which will cause the flower-stalks to rise freely during the following months.

GESNERA ELONGATA.—This does well either in a warm greenhouse or in a coolish stove at this season. If too hot the plant will be drawn. Propagated by cuttings; grown in peat and loam. When done flowering, prune back freely to the base of the shoots; allow it to remain cool and dryish for some time afterwards. When breaking freely give it a little water. When the young shoots are one or two inches in length, shake away a little of the old soil, and repot, and keep it close and warm until growth and fresh roots are freely progressing; then give more air, and by June a cold pit, which may be kept close at first, and more air given afterwards, will just be the place for it until the end of September, when it should be housed.

FRANCISEEA CALYCINA—large, purple flowers, with light centre; treatment similar to that spoken of for *uniflora* and *latifolia*, though, perhaps, a little more tender. In a late number, a correspondent alluded to *Hopeana*, &c., as greenhouse plants, confirmatory thus of similar statements made long ago; but if the greenhouse is kept only a little above 45° in winter the plants become deciduous.

HIMANTOPHYLLUM, OR IMATOPHYLLUM MINIATUM.—Under this name there is a nice plant in flower at Mr. Veitch's in a cool house. The flower a buff-orange, standing boldly up instead of hanging down like a *Clivia*, to which the genus is a next-door neighbour, if not an elbow friend. The leaves, in consistence and form, being between the *Clivia nobilis* and the *Hippeastrum aulicum*, which latter will be in bloom in many places.

ROGERIA CORDATA.—A neat, shrubby plant, producing corymbs of flowers at the points of the shoots, in the way of a *Laurustinus*. Grows freely in peat and loam, and requires, as far as yet known to us, common stove-treatment, and is desirable, from blooming in a dwarf, compact shape.

RHYNEOSPERMUM JASMINOIDES.—An intermediate house suits this best, one of the sweetest importations from China. In a stove, not very hot, it will now be coming into bloom. In a greenhouse, averaging 45°, it will not bloom for a month or six weeks to come. It grows well in peat and loam well drained; should be pruned and cleaned when done flowering; and kept close, and in a moist atmosphere afterwards; be placed in a cold pit in June, out-of-doors in August and September, and housed by the beginning of October.

GREENHOUSE PLANTS.

AZALEAS.—There have been many complaints of the buds instead of flowering turning brown and falling off. Much of this arises from the buds not being sufficiently ripened, and much, also, from subjecting the plants to sudden changes of temperature, such as moving them from a temperature of 40° into one of 65°, or even higher. Now, all this should be done gradually. Suppose you take a few plants to a forcing-pit, or stove-house, they should be placed at one end, air left on there, and the plants be frequently syringed, so that the temperature for a few days shall not greatly exceed that they enjoyed in their winter quarters. If the heat is thus raised gradually, there will be sure to be a profusion of bloom if the buds were properly matured.

CAMELLIAS.—These will now be coming in well. I only wish to give this caution—A little cool manure-

water, such as that made from old cow-dung, will cause the bloom to come large and fine; but too much feeding, or giving it in a rank state from fresh dung, will be apt to mar the colour of the more delicate flowers. It is safest to use such manure-water weak and often.

BRACHYSEMA LATIFOLIUM, VILLOSUM, AND UNDULATUM.—The first has scarlet, the second crimson, and the third greenish-yellow flowers. The first is best known. In a cool greenhouse it will not flower until next month. If kept at all warm, and it rather likes from 45° to 55° in winter, it will bloom in February and March, and onwards. It thrives best in fibry-peat, with a little fibry-loam, increasing the loam as the plants get older. This makes an elegant trellis climber, propagated by half-ripened, short, young shoots, under a bell-glass, in sand, and in a mild bottom-heat in summer, and by seeds, sown in a hot-bed, in spring. A cold pit, from which the glass is removed after August, and plenty of air, given previously, would suit it well in summer; housing it in October.

BORONIA PINNATA.—The treatment of this genus has lately been given. All *Boronias* are very shy of anything in the shape of stagnant moisture, and the same may be said of the *Brachysema*.

CYTISUS FILIPES.—Few things are more interesting than this thread-stemmed plant loaded with its pure white blossoms. Being a native of Teneriffe, it will not stand much rough or extra-cold treatment. It is propagated by cuttings of small side-shoots, in sand, under a bell-glass, in May, or by grafting on hardier and commoner kinds. Grows in fibry-loam and peat, and requires an average temperature, in winter, from 38° to 45°.

EPACRIS.—It would require a page to mention the names of these that may now be in bloom. As already detailed in this work, though there is much difficulty in managing many Heaths in a house containing a mixed collection; these *Epacris*es, the Australian Heaths, thrive well under such circumstances, being never subject to mildew, so far as I have seen; though, under similar circumstances, Heaths would be ruined by it. After they have done flowering, and are pruned freely back near to the base of their young shoots, and are allowed to rest for a week or two, it is scarcely possible to give too much excitement to the growing principle afterwards, by keeping them in a close place in the greenhouse, or placing them in a forcing-house or pit. The next thing is to see that the growth thus made is well matured, by exposure to sun and air in August and September, and then to house safely before the end of October. Like all matters in which the division of labour principle is at full stretch, no amateur, or gardener either, who has many matters demanding his attention, can raise these plants by cuttings, at the price they are sold at in commercial establishments.

LILY OF THE VALLEY.—I introduce this again just to chronicle a dodge of my neighbour, Mr. Fraser, who is generally extra-successful with this indispensable, wherever young ladies and their refined tastes must be consulted. In filling the pots from the roots and buds taken from the open border, he submits every bud to a slight squeeze between his thumb and finger, and, by the hardness or softness, at once satisfies himself whether the bud contains flowers or not. By this means it is very rare that ever he has such a thing as a blind shoot. When potted, the pots are generally placed in a shady place, in something like greenhouse temperature, for some time before they are subjected to forcing-heat.

SELAGO DISTANS, with white flowers, and **S. GILLII**, with pale-rose flowers, are dwarf, evergreen shrubs, with small foliage, natives of South Africa, easily propagated by cuttings, growing freely in sandy loam; thriving out-of-doors after June, and requiring an average of 40° at night in winter.

SALVIA GESNERÆFLORA.—The treatment of this has often been given. Perhaps the simplest mode for getting good-sized flowering-plants would be to prune back close to a bud, in April, the younger plants when done flowering; or to insert cuttings in March or the beginning of April. In either case, turn the plants out into rich soil in June; stop, train, and water during summer; raise and pot carefully in the beginning of October, and house secure from frost before the end of it. In a common greenhouse they will be coming into bloom by the end of this month, and will be gay with their rich scarlet flowers for two months to come.

HIPPEASTRUM, HABRANTHUS, ZEPHYRANTHUS, AND OTHER AMARYLLIDS, whose leaves die down when the bulb is matured.—One word as to these, which will explain several disappointments and prevent mistakes. Keep most of these when at rest from 5° to 10° above the freezing point; they will remain at rest in a higher temperature if kept dry. Supposing they are all in pots, and you wish to start them into bloom, do not touch them in the way of *repotting*; place the pots merely in the increased temperature, and moisten with water at about 75°; after the plants have had the benefit of the rise in temperature for a few days. If there are flower-buds formed, they will show themselves before long, then pick off the surface soil and add fresh, rich compost; old cow-dung may constitute a good portion. This, with waterings over it, will cause the flower-stem to rise thick and strong. Shortly after the flowering is over, and the plants have had a short time to rest, give what repotting is required; and during summer let the foliage have all the sun possible until they begin to wither, and then the bulbs must be rested until wanted to bloom the following season. It will be evident that plants that do not bloom must be treated in a similar manner for ensuring bloom the next year. The finer the foliage made, provided that is fully exposed to light, and placed in a growing heat, and the more perfectly the bulbs are thus matured, the better will they bloom the following year, and all the more from being thoroughly rested by the soil being next to dry. Kinds, such as *Hippeastrum Aulicum*, that do not die down so readily, merely require less water in autumn and winter, but not to be dry. I have found, that as a general rule, the best time for repotting is after blooming. R. FISH.

SOWING ONIONS.

THERE is scarcely a crop of more importance to the cottager than one of *Onions*, and few vegetables are more general favourites.

In its cultivation, the first point to be remembered is, that although the Onion, like most other crops, prefers a changed soil each year, yet that this change is not indispensable, as I have seen large breadths of ground in the market-gardens on beds that had borne Onions for many years in succession; but as there is no real advantage in having this crop on the same ground for a succession of years, and as other crops benefit by the change, it is prudent for the cottage gardener to change his Onion ground as mentioned in some of the former articles of this work; and having prepared it as directed, so as to be ready by the proper time of sowing, a few remarks bearing on that operation may now be of service to him.

Commencing at what is of the most importance, "the selection of seed," it is advisable to have this, if possible, of home-growth, and, likewise, that of the preceding year; for though the seed will retain its vitality for several years, still it is questionable whether the produce will ever be as good as that from a more fresh, robust seed. Besides which, there are other qualities than a robust growth that is necessary in the Onion, one of

which qualities is the good keeping of the produce, which good keeping quality those obtained from foreign seed are said not to possess.

Varieties of the Onion are, like those of other garden produce, numerous enough, or, rather, *names* are plentiful; but a good kind that has been long cultivated in this country is always preferable to that from a warmer climate, as the latter is not so likely to perfect its growth so well as that home-grown, sufficiently early in the season to be able to be kept through the winter. This is very important, and ought to be attended to. If it be necessary to mention names, I may say that the *Reading* Onion is as good as any for the general crop; the *Globe* is also a good cropper, but does not keep very well, while the brown and white *Spanish* are both good and useful. The old *Strasburg* is now considered small, yet there are few, or none, that keep so well, so that it is advisable to sow a few of it in order to have them as late as possible. Some cultivators, who have not the means to grow their own seeds, buy two or three kinds and mix them, so that if one fails, the seedlings from another may supply its place. To those who are anxious to notice the various points in the kinds cultivated, this will not do; but, generally, people are more careless, in that respect, concerning this crop than most others; and in using the produce, it will be as well to avoid consuming those which seem to keep best; that is, let those be used first that show symptoms of growing or decaying.

Of the *soil* suitable for Onions there has already been a good deal said; suffice it here to say, that when the soil is good, this crop roots much deeper than is generally supposed. I noticed some, last year, which had penetrated upwards of twenty-two inches, the ground being good the whole depth, and the dry weather tending to drive the roots downwards in search of food, which they cannot always obtain in sufficient abundance near the top. It is always advisable to have the ground good, so that the bulbs may attain as large a size as possible; and as the Onion seems to relish a rich, loamy soil, in preference to one either particularly light, or heavy, it will be advisable to humour it, in that respect, by adding manure before sowing, and once or twice, at the proper time, applying liquid-manure when the bulbs are swelling.

In regard to the most proper *time for sowing* Onions, there is a much wider latitude than for most other crops, the seed being particularly hardy, and the progeny less liable to injury from insects, slugs, and other enemies to young vegetation than most plants. It is not necessary, therefore, to defer the sowing to any particular day, as is sometimes advised for other crops; for whenever the ground is in good order, the seed may be sown without any fear of the consequences; but, usually, the first or second week in March will do as well as any other time, provided the ground be dry enough. The most general way is to sow these seeds in rows drilled out, about a foot apart; and as that operation cannot be done without some treading upon the ground, this must be dry, and then the treading does good rather than harm. When the soil and season are wet some other mode must be adopted for sowing such seeds; for, be it observed, it is not prudent to leave the sowing till late, as the summer, or, rather, the hot part of it, is quite short enough for this crop perfecting its bulbs. When, therefore, a succession of wet weather prevents the ground being operated upon without treading it into a solid mass, it is better to divide the plot into beds, about four feet wide, with fifteen or eighteen-inch alleys, and to sow the seed broad-cast. In this way there will be a small loss in the alleys; but the plants in the beds are often allowed to remain much thicker than when they are in rows, so that the difference in the quantity of the produce is not so great as might be supposed; and there

is a little advantage in being able, at all times afterwards, to have access to the crop during all weathers, to thin, weed, or to apply liquid-manure as needed. Beds, indeed, are preferable in all stiff soils, when, as stated above, there is a danger of the mass being trampled down into a hard substance; but on very light, sandy soils there is not so much likelihood of this taking place, and the ground in such places is better by being made somewhat firmer.

When sown in drills, a foot between them is sufficient in most cases; but where there is a desire to obtain some very large bulbs, the rows might be fifteen inches apart; and at thinning time a proportionate space be allowed in the row likewise. After all that has been said of thinning Onions very much, and the other points of management, the most essential thing is to make the ground good at first, and this, aided by a favourable season, is of far more consequence than any after-treatment; inasmuch, as with a generous soil a much more numerous progeny may be effectually maintained than can be done by the most judicious thinning; and, in the next place, where a good depth of soil has been prepared, the plants are, in a measure, secure against ordinary droughts in the best part of the growing season, when it is most important that the plants should not receive any check. Although I am, myself, an advocate for a good thinning, I am aware there are times, and plenty of them, too, in which thinning alone will not effectually secure a good crop; while, on the other hand, a good one may sometimes be had by an almost reverse method. Last year, I remember leaving some rows in a plot of ground, very thick, scarcely thinned at all; in fact, the few that were left very thick were so left with a view to supply young Onions as wanted, and intended to be thinned as they were called for. This system, which is often carried out too far, was attended with the usual result; they were not wanted in time, and the whole lot (of what was left so) soon began to oust each other out of the row; but as the ground was good, and the season favourable, they shouldered each other in such a way as in some cases nearly to cover the ground with their bulbs where they were fully swelled out, and the produce was most abundant; and though there were many small bulbs, still, there were plenty of good-sized ones also.

As the process of drawing a shallow drill with the corner of a hoe is tolerably well-known, and the raking over of the ground is a simple operation, I need say but little about these here; only, as there is often a great temptation to sow *Radishes* amongst the crop, I may here observe, that it would be as well to draw slight drills for these also *between* those for Onions, in order to get the seed properly covered, as it not unfrequently happens that seed scattered broad cast over the ground, with no other covering than that resulting from the raking in of the Onion drills, is, in a great measure, sacrificed. Be careful to sow the *Radishes* very thinly, and be sure and remove them all long before the Onions suffer by their presence. The *Salmon*, or *Short-top*, are the most suitable, but a few of the *Turnip-rooted* may be sown likewise; only, I here repeat the warning, that nothing, whatever, sown here must be allowed to compete for a living with the legitimate crop; for, as before said, the Onion is rather a luxurious fellow in his way, and must be indulged accordingly. J. ROBSON.

ALLOTMENT FARMING.—MARCH.

As the wet weather of last month may have delayed the routine operations recommended for that month, it will be now necessary, as soon as the ground is in a fit state—and it should never be dug or trampled on when it is so wet as to become adhesive like paste—to bring up all arrears.

Sow *Green-kale*, *Brussels Sprouts*, a little *Walcheren Brocoli*,

Cabbages, of sorts, *Radishes*, *Spinach*, and a few *Early Stone Turnips*. The *Cauliflower* plants, protected during the winter, should now be planted out. The *Silver-skinned Onion*, for pickling, to be sown on poor ground, in a dry state; after sowing to be well treaded over to make the ground hard. A good breadth of *Broad Beans* ought to be now sown for the main crop; as also *Onions* and *Leeks*, on good, rich ground, the surface to be occasionally sprinkled with soot in showery weather; and salt applied to the *Asparagus* and *Sea-kale* beds.

The *Green-curled Borecole* is a useful crop, sown now, and planted out early in summer; the tall stems producing an abundance of sprouts, from bottom to top, with large heads, that withstand the severity of winter well, and continue to give a good supply during the autumn and winter months. *Savoy*s must be sown for planting out in summer, to produce large heads for autumn and winter use.

Celery is to be sown on a warm border, or on a slight hotbed, to prick out, when two or three inches high, on a bed of old dung, and a little mould on the top only six inches deep, on a hard bottom, whence they can be moved with a mass of roots to the trenches, where they should be supplied with an abundance of water or liquid-manure to attain perfection. *Hardy Lettuces* that have stood all the winter in frames or under hand-glasses can be planted one foot asunder the early part of the month. The seeds of pot-herbs, such as *Sage*, *Thyme*, *Mint*, *Savory*, and *Marjoram*, &c., should be sown, or these be increased by slips, or by parting the roots.

Finish *planting fruit-trees* as soon as possible, and the pruning of *Vines*; for when the pruning is postponed until the sap is in circulation, they bleed so freely as materially to exhaust and injure the system or natural vigour of the tree.

As the *Potato* is now not likely to be neglected by the cottager who appreciates it as a most valuable crop, and next to grain for food, it is only necessary to suggest, that where poor cottagers have no means of obtaining good varieties, it would be well worthy of the attention of the wealthy, and an act of kindness for the proprietor of the estate, or the landlord, to introduce into the neighbourhood, for the cottagers who have gardens, or allotments, a few of the best and improved sorts. The expense would be trifling, as they are easily increased. The following sorts are good, and should be planted not later than the middle of the month:—*Shaws*, *York Regents*, *Forty-folds*, *Kentish Goldfinder*, *Bread-fruit*, *Poor Man's Profit*, *White* and *Red Golden*s, and, for late sorts, *Blue Dons*, *Minions*, or *Cups*, and the *Plain de Rohan*, which is a great cropper, fit for swine or cattle, as it is only in some situations that it is a good, late table *Potato*.

As the season for *grafting fruit-trees* has now arrived, it may be useful to some cottagers to know that whip-grafting is the general method adopted by nurserymen; and where there is an opportunity, the best lesson that a novice could take would be to inspect the operation performed by one of them for an hour in the nursery rows, where, of many scores grafted by a skilful hand, not half-a-dozen of the whole lot will fail of complete success. It is called whip-grafting, from the method of cutting the stock and scions sloping on one side, so as to fit each other, and they are thus tied together in the manner of a whip-thong to its shaft or handle. To prevent the admission of light, wet, or wind, after being tied closely together with a strand of matting in a wet state, it is covered with clay in an oval form. The clay is made by beating together, in an iron pot, a quantity of adhesive brick-earth with about one-part of horse-droppings, and so much water as will give to it the consistency of putty.

As *slugs* are very apt to harbour about the stems of the young growing crops of vegetables at this time, and nibble them off, or seriously injure them under the surface of the soil, it is advisable to strew some soot close to the stems of the plants when hoeing between or earthing-up any of the spring crops.

HEARTSEASE.—Towards the end of the month the seed may be either sown in boxes of light earth, placed in a cold frame, or the open ground. If sown in the open ground, the soil should be light, and the seed sown in drills about three inches apart, and lightly covered with finely-sifted soil. If the sun is powerful, the bed should be shaded, to keep the surface constantly moist, when the seeds will vegetate

more freely. The plants in beds should now receive a top-dressing, an inch thick, of rotten dung and well-decayed turf, or fresh maiden soil, and the plants left with merely their heads uncovered. If the trouble is not considered too much, it is advisable, during the prevalence of dry, cutting easterly winds, to cover them with garden-pots, to be removed for a few hours during the day. The operation may appear tedious, but it is very frequently, by attention to what may be considered trifles by some, that the persevering and industrious amateur, or cottager, can attain success.

The *Carnation layers* should now be planted out in the open ground, or, if they are intended to be grown in pots, they may be planted off about the end of the month into what are called six's, or such as are about twelve inches wide at the top, six inches at the bottom, and ten inches deep inside, three plants to be inserted in each pot, not deeper than they stood before potting, and protected from easterly winds.

Plants, such as *Geraniums*, *Fuchsias*, *Calceolarias*, *Verbenas*, &c., that the amateur, or cottager, may have preserved during the winter in pits or frames, will now require repotting. The compost made of decayed turfy loam, the top spit of roadside or pasture soil, laid in a heap, turned over, and chopped small, two or three times for twelve months, with an equal portion of well-rotted dung or leaf-mould, mixed together, will be found suitable for such plants, and when attention to watering, &c., is given to them, a fair share of success will be the result. In potting, one crock or broken potsherd over the hole at the bottom of the pot, with about an inch in depth of the turfy part of the loam over that, will be sufficient drainage; the soil to be moist, but not wet; and when potted and placed where they are to remain, to be watered, kept close, and shaded from sunbursts for ten days or a fortnight, until they begin to make fresh roots, when they may be gradually exposed, in favourable weather, to more sun and air, to produce robust growth and more profuse bloom.

As the above plants are now very generally employed to decorate the flower-garden during summer and autumn, we shall only name a few good, hardy annuals that may be sown, viz.:—*Nemophila insignis*, *Erysimum Peroffskianum*, white and purple *Candytuft*, *Collinsia bicolor*, *Clarkia pulchella*, *Gilia tricolor*, and *Eutoca viscida*.

German and *Ten-week Stocks* and *German Asters* may now be sown on a gentle heat. The *German Asters* of last year were the finest that were, probably, ever seen in this country; the season was most propitious, and after a very general failure the preceding one, doubtless they will be more generally cultivated this year. When two or three inches high, they are transplanted, like *Celery*, from the seed-bed into another bed, with only a few inches thick of light soil and dung on a hard bottom, where they produce a mass of roots, and are either finally planted out where they are to flower, or, if wanted for pot-plants, they are taken up, even when in bloom, and being well watered they continue in perfection for some time.

LUCERN may be sown this month. It delights in a deep soil. A top-dressing of sulphate of lime or gypsum during the summer makes it grow luxuriantly. Live stock prefer gypsumed Lucern to any other. It is best sown in drills one foot apart; by this means it can easily be kept clean by the hoe.

Hand-hoe between the rows of *Wheat*; and a sowing of *Taunton White*, or *Essex White*, may be made early in the month on the sandy soils, the *Turnip* and *Barley* soils of agriculture. About five-and-twenty weeks until harvest will be sufficient, in favourable seasons, to bring forth a good and abundant crop. The land must be in good condition to cultivate winter *Wheat* sown in spring with success; but its culture, in allotments suitable for it, is an object which ought not to be neglected.

The usual time for sowing *Oats* is from the beginning of this month to the end of April; the earlier the sowing the better the quality of the grain.

The main crop of *Peas*, for pea-soup or pig-feeding, should now be sown.

As the outside rows of every crop are the most productive, it would prove of advantage in the allotments to plant or sow single rows of each sort, with sufficient space between them for other things—a row of *Barley* next a row of *Pota-*

atoes, a row of *Peas* or *Beans* with *Turnips*, *Parsnips*, *Carrots*, or *Cabbages*, between a row of *Wheat*, and then *Onions*. By running the rows north and south, the shade from the taller-growing plants would be only temporary, and of advantage to some crops, such as *Onions*, &c.—WM. KEANE.

VEGETABLE CULTURE AND COOKERY.

NO. VII.

BROCOLI.

In cultivating Brocoli, the first consideration is to secure a regular succession for a supply throughout the year. For a first crop the best is the *Early Purple Cape*, which, if sown in the middle of May, will come into use in August and September. To succeed this, either *Grange's Early White*, or *Snow's Superb White*, which is better, if sown in the beginning or middle of May, will come in during October, and continue on till Christmas. Then follows that very excellent variety the *Walcheren*, which, if sown in May and June, will furnish an excellent supply of its large, tender, white heads throughout December and January. The next is *Knight's Protection*, or *Invisible*, which is a very hardy and excellent variety; and this, followed by the *Wilcove*, *Brimstone* and *Elletston's Mammoth*, will complete the season till Cauliflower comes in to furnish a supply during the summer. All these last-mentioned should be sown about the middle of April.

Some cultivators have recommended the successional sowing of two or three varieties only to furnish the year's supply; but experience has shown, that in severe winters it frequently happens they are completely destroyed, and spring crops are lost. It is, therefore, much the safer plan to grow those varieties which are capable of enduring such winters, and which will come on in succession.

To secure a late crop against all contingencies, sow in the first week in May some of the *Dwarf Danish*, a very hardy variety; and in the end of the month, or early in June, the *Purple Sprouting*, and there will be little fear of disappointment.

Brocoli requires a strong, rich soil, with abundance of manure. The seed should be sown on a bed in an open situation, the surface of which has been made light and mellow, and then raked in. When the plants have three or four broad leaves, draw out the strongest, and prick them out on another bed at six inches apart, and after they have made considerable strength, transplant them, in warm, showery weather, on a piece of ground which has been previously well dug and manured. They should be in rows two feet-and-a-half apart, and two feet distant from each other in the rows. As they advance in growth, earth up the stalks on either side with a hoe, and this will be all the attention requisite, except to keep the ground loose about them, and free from weeds. In winter, during severe weather, the heads may be protected by breaking some of the leaves over them.

To BOIL BROCOLI.—Strip off all the side-shoots, and preserve the top. Peel the skin from the stalk and the shoots, and throw them into cold water. Have ready on the fire a stew-pan with cold water, to which a little salt has been added, and when it boils put in the Brocoli; let it boil from ten to twenty minutes, and when the stalks are tender it is done enough. Take it up with a slice, that it may not be broken, and let it drain.

Brocoli may be served on toasted bread placed in the bottom of a dish, and soaked in the water in which it was boiled, in the same way as *Asparagus* is done, and accompanied with melted-butter in a boat. It should be taken up immediately it is done, and sent to the table hot, otherwise it is worthless.

BROCOLI SPROUTS.—The Italian mode of cooking Brocoli Sprouts is as follows:—Boil them in salt-and-water, and let them cool; when cold, dredge them with flour, fry them brown in butter, and sprinkle a little salt over them. This is a wholesome dish.

BROCOLI AND EGGS.—Boil the heads of Brocoli as directed in the first receipt; and while they are boiling, have ready six beaten eggs. Put a quarter-of-a-pound of butter into a saucepan, and stir it over the fire till it is all melted; then

add gradually the beaten eggs, and stir the mixture, or shake it over the fire till it becomes thick. Toast sufficient bread to cover the bottom of a deep dish; pour the egg and butter over the hot toast, then place the Brocoli upon it, the large head in the centre, and the smaller ones round it, with the shoots round the edges as a garnish.

BROCOLI SALAD.—Boil it as directed above, lay it in a dish, and beat it up with oil, vinegar, and a little salt. Garnish with Nasturtium-seeds.

Many of the receipts given for Cauliflower may also be used for Brocoli.—ROGER ASHPOLE.

GARDEN HERBACEOUS PLANTS.

Your correspondent under this head alludes to the family of "Helleborus" as giving flowers in the winter. I take leave to add a list of other beautiful attributes of Nature, that are now displaying their beauty and fragrance in the beds of my garden. *Helleborus niger*; *Eranthis hyemalis*; *Tritoma media*; *Tussilago fragrans*; *Galanthus nivalis*, in sorts; *Crocus biflorus*; *Anemone hepatica*, in varieties; *A. hortensis*, in varieties; *A. coronaria*, in varieties. While upon the bushes is the sweet *Chimonanthus fragrans*, and the *Jasminum nudiflorum*, wreathed in its flowers of gold. These and the succession of another fortnight produces *Erythronium dens canis*, in sorts; *Leucojum vernal*; *Arabis montana*; *Alyssum saxatile*; *Scilla bifolia*; *Scilla præcox*; the beautiful family of the *Crocus* in all their colours, while we yet remember the *Crocus autumnalis*, and the the *Colehium* of the past season.

With all these floral beauties, however, how many of the gardens I am led into that assume only the character of a Welch churchyard! There are the beds, it is true; but, unless well-directed gardening can lead me to some object for admiration, I would rather it were turfed over.

Botany has certainly sunk greatly in the few past years; the rage for glare has, for a time, at least, placed science in the shade. Ask the young gardener the classic name of the "Rose of Jericho," and he will tell you he knows the "Cloth of Gold," Rose, and he can add a list of *Verbenas*, with the "Flower of the Day" *Geranium*, &c. Such are the acquirements of the day.

Please tell "Anti Frigi" that I cover my pit with sail-cloth upon rollers, and prepared with a pliant composition, that neither cracks with cold, nor becomes adhesive by heat.—SNOWDROP.

[Our correspondent is wrong; never was there a time when the scientific names were so well known by young gardeners. Of course there are exceptions.—ED. C. G.]

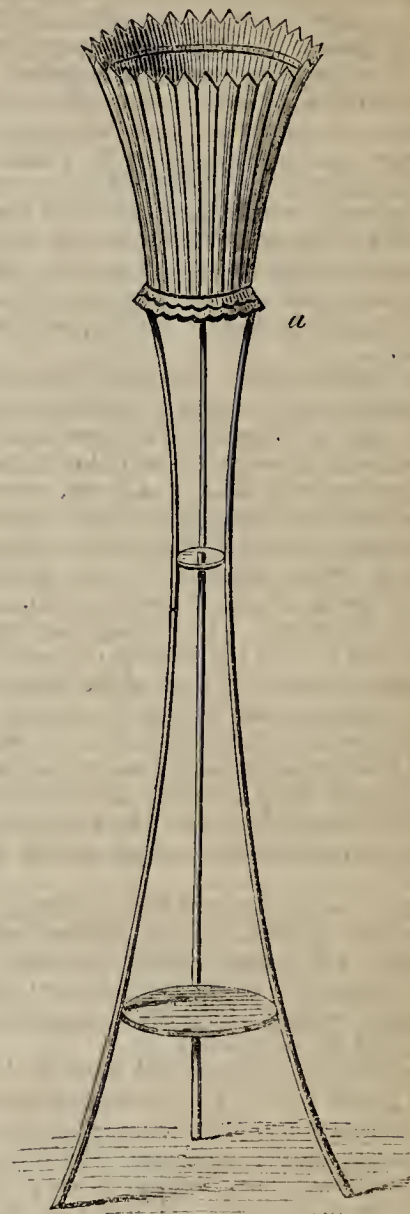
PRACTICE IN RUSTIC WORK.

THERE are some people who must be always cutting, notching, or carving with a knife. Sometimes they seek to perpetuate their precious memory by the formation of certain well-known letters in the bark of a tree, or any other surface which happens to be near. When their hands are not otherwise occupied, almost every form or bench can testify to the interesting fact that the owner of some name beginning with "A. B.," or "R. W.," once marked the spot with his presence, and left an impression behind him. Others, ambitious to give a touch of art to their productions, are absorbed for many a long hour in developing the head of a monkey, or a dog, on the top of what is highly esteemed as a walking-stick. I once knew a boy who had a remarkable fondness for making pen-knives, including even the plate for engraving the name, and *all in wood*. Among poor people, too, there is really no limit to the number of juvenile ship carpenters, all more or less distinguished for cutting out their smacks, cutters, schooners, and other merchantmen destined to scale the mountain waves of the nearest ditch.

Let us not frown on these humble efforts, however they may make us smile, but rather let us endeavour to give them scope and direction, so that the time and labour which would otherwise be wasted may be profitably and agreeably spent. Rustic work, such as relates to the construction of flower-baskets and flower-stands, is well suited for this pur-

pose, for it includes both cutting and carving, as we shall see by-and-by.

Those of your readers who have a little taste and spare time, could hardly do better than give it a trial.



In introducing this subject to notice, I send a sketch of one of the simplest flower-stands I have been able to find. It is intended to contain a plant in a pot, and to be placed either in an open corner, or behind other plants. The construction of this *single stand* requires but little skill or labour, and the only point which needs particular explanation, is that at *a*.

Here there are two different ways of working, in order to produce the projecting bottom. With the first of these two ways, the bottom is formed of two circular boards, the *lower* projecting a little, say about half-an-inch, beyond the margin of the *upper*, and on this latter the lath-like sticks or *ribs* are neatly nailed, after being properly prepared. The other mode is not so convenient, nor so much adapted, but it saves a little wood. It consists simply in carrying a narrow band of wood, or a branch, round the bottom of the ribs after they have been nailed on to the bottom. But before saying more about the construction of the stand, I wish to offer a few observations respecting the

MATERIALS.—The legs (either three or four may be used) are of the thickness of an ordinary walking-stick; sometimes they are a little thicker, according to the size of the top. It is almost unnecessary to say that any kind of branch will serve the purpose, but it is desirable to have all the branches of the same thickness, and as even as possible.

Birch will, perhaps, be found the best description of wood for the ribs, if it can be procured, but any other may be used.

Common deal board, about half-an-inch thick, is good enough for the bottom; but it is somewhat difficult to cut a piece of wood evenly round, except with a good saw made

for this sort of work, that is, a small, narrow saw, having fine, sharp teeth. It may, therefore, be preferable to have the circular boards prepared by a carpenter, if there happens to be one at hand. Certainly, a handy person may make a shift with a sharp knife or a chisel, but neither is so good as a saw, when it can be obtained. A small brad-awl and some nails of different sizes will also be indispensable.

Begin work by preparing the ribs, cutting them to the same length, tapering them evenly towards the bottom, and pointing them at the end which is to be uppermost. Keep them as nearly as possible to the same form, and cut the bottom end smooth.

When the ribs are neatly prepared, nail them on to the smaller of the two circular boards which is to form the bottom. If they have been properly prepared they should lie close to one another, and be as near as possible at right angles with the bottom; that is, they should not lie to one side, though sometimes in the process of being put together they may get out of place. It ought to be noticed here, that a ring or hoop, made of an osier twig, is used at the inside near the top, in order to keep the ribs in their places, and it is desirable to introduce it at once. Therefore, nail on two ribs, first of all, at exactly opposite points, and nail the hoop to them. In this way it is much easier to adjust all the others. But though this appears, at first sight, to be a very simple affair, it will be found that considerable care and nicety are required to have the ribs uniform and close together, with just the exact number wanted to fill up the whole all round. This is the point which proves the clever workman in such a form of stand, but, to be sure, so great nicety is not essential to its general appearance. It may be seen, by occasional inspection in the process of working, whether the ribs occupy their proper positions; and it will, perhaps, happen that one or two require to be made a little narrower, either near the top or bottom. After thus nailing the ribs to the bottom, secure them in the same way to the hoop at the top.

Now, the larger of the two boards is firmly mounted on the legs, which are nailed at equal distances to hoops, one near the bottom, and another near the top, as seen in the figure. But, instead of a hoop, a board may be placed near the bottom, and a flowering-plant or evergreen can be put on it when wanted.

The bottom of the basket, that is, the larger of the two boards at *a* having been properly "bevelled" at the beginning, is now neatly covered with the scales of Fir cones, arranged in an overlapping manner. Those quite close to the bottom of the basket will require to be shortened a little, and the whole may be either fastened with glue, or small tacks without heads; indeed, the nails in every case should be as small as possible. It is scarcely necessary to add more, for a little practice is better than a volume of directions. There is, however, one point yet which needs especial notice, that is, the process of preparing the branches for the ribs. Whatever kind of wood may be chosen, the branches should be cut into lengths of eight or ten inches, and laid up to dry for some time; if these lengths are without knots, so much the better; and if they cannot be evenly split, they must be sawn with a sharp "ripping saw," but they must be held quite firm while being sawn. For this purpose the hand will not be sufficient, and, therefore, some way of keeping them firm in position must be contrived. The most fertile cause of disappointment in all work of this kind is the want of proper tools, and the means of keeping the work firm and steady.—F. P. K., *Paris*.

THE FORELLE PEAR.

THE Forelle or Trout Pear is a beautiful Pear, and should be grown in all collections. I know of no Pear so handsome, when well grown on a west wall, gathered at the right time, and nicely finished ripening in a cool fruit-room. Nothing, I think, makes so elegant a dish in the dessert.

The colour is a delicate citron, highly polished, and thickly studded on the side towards the sun with small crimson spots. The flesh is tender, juicy, and melting, with a very agreeable brisk flavour, slightly subacid, partaking of a slight flavour of the Apple.

The tree is a vigorous grower, and bears well on a west wall. I have not tried it, or seen it tried, in the open quarters of the garden; but I think it would succeed if grown pyramid fashion. It appears not to be very well known or so extensively grown as it should be. It is very much admired by all who have seen it. Could you enlighten us a little on its history?—M. BUSBY, *Stockwood Park*.

[See page 285, Vol. xiv., for a history and description of the Forelle Pear.—ED. C. G.]

THE STANWICK NECTARINE.

So much has been said and written on the merits and demerits of the Stanwick Nectarine, that, perhaps, you will say—"Enough." Still, I think it has not been sufficiently tried to be condemned, nor, on the other hand, to be fully recommended. In what little experience I have had with it, I like it much. It fruited here the first time last season, and the fruit was ripe, on the open wall, the second week in September. It showed no symptoms of cracking, and is what I should consider a very excellent late Nectarine, of a good size, and finely coloured. The flavour is rich and grateful, very juicy, more so in the open ground than any Nectarine we have, and which flavour it retains to the last, which is more than can be said of some others. Probably, the season and the soil might have had some influence. The soil here is on the clay formation, and twenty feet through to the chalk, and therefore calculated, particularly in hot seasons, to suit the Peach.

I was so pleased with the appearance of this Nectarine, that I removed, last autumn, a strong plant into the Peach-house, where it is at the present moment, 5th of February, covered with large blossoms. Should it force well, I hope to be able, at a future time, to let you know.—A BUSBY, *Stockwood Park*.

RANUNCULUSES.

NOT for a moment do I think it is necessary to tell the growers of this delightful plant that now is the time to plant it. On the contrary, the growers of florists' flowers, at least, those that deserve the name, do not forget them, and are as conversant with the habits and wants of their pets as the loving mother, the careful and affectionate nurse, is of those of her children. But, though it is not necessary to tell the above, I hope it will not be lost on those that have never tried them, and that, before long, this pretty, but neglected, plant will be placed amongst the first of its class, which it so richly deserves.

As the roots of Ranunculuses strike deep, the soil in the beds for them ought not to be less than three feet deep. Those that cannot fill the space required for them with three portions of good, fresh, sandy loam, and the other portion of cow's manure, up to two inches of the surface, must be content with trenching the ground to this depth, and adding one-fourth cow's manure. If the earth is adhesive, a portion of sand should be added also, and if from the sea-shore so much the better. Supposing this is done, and if draining pipes, say two inches in diameter, are inserted six inches below the surface, and one foot apart, communicating with the surface with pipes, this will be found an excellent way to give Ranunculuses either liquid-manure or plain water, as their wants may require it.

Supposing the bed has been properly prepared and levelled, I should then place half-an-inch, or an inch, of leaf-mould mixed with sand over the whole; then take a straight rod and mark the lines out for the rows across the bed, say five inches apart, and, when planting, allow about four inches betwixt them in the row; press the claws of the roots a little into the earth, to prevent them being disturbed when covering them over, which covering should not to be more than one-inch-and-a-half deep, and ought to consist of about equal portions of leaf-mould, fresh loam, and sand. As soon as the plants begin to make their appearance above ground, I would give them a slight mulching of cow's manure, as it is an excellent regulator

in keeping them from suffering from dry weather. A slight covering of moss is also good, placed between the rows after the foliage is up.

I hope those that cannot have a bed of *Ranunculuses* this season will try to raise a few seedlings as a beginning. Nothing is easier reared, and, even if they make one good claw, they will, with ordinary treatment, be sure to flower next season. This is well worth the notice of young gardeners in Scotland. I say Scotland, as young gardeners there generally exchange places in November, when the roots of the *Ranunculus* are out of the ground, and take but little room in packing up. I can speak practically to the working and pleasure in carrying this out; for when I left home to enter on the first steps of a serving gardener, I was obliged to give up the whole of my other favourite pets. The *Ranunculuses* I kept, and carried from place to place as long as I remained in Scotland, and, believe me, they gave me many an hour's pleasure that I should not otherwise have had; and next to my little store of books, when I entered on a new situation, I never considered myself at home till I had looked my *Ranunculuses* over, counted their claws, and seen that they were all safe. Besides, rely upon it, if a head-gardener sees you anxious and fond of flowers, he will keep his eyes on you, and that if your conduct and abilities justify him, he will be sure to do all he can for you.

Allow me to add, it seems strange to me, that though there is not a manufacturing town of any note in the kingdom but is distinguished for florists, how few and far between they are to be found amongst the agriculturists. The labourer is satisfied with his Honeysuckle, Wall-flower, Hollyhocks, &c. Far otherwise the weaver, the collier, and the hammerer of iron. If they have not the carriages and horses to give, that we are told were nothing thought of in older times amongst the Dutch, in exchange for a Tulip, still, a keen florist gives, even in the present day, his little all, and that with pleasure, for some favourite flower. Every favourable moment at this season is taken advantage of, at meal-times, to watch and take care of his favourites. The Tulip and the Hyacinth, now making their way to the surface, have not been over-looked, and where there were doubts of their roots being all right, they have often been examined, and a modicum of dry earth substituted where they appeared suffering from damp. Little hillocks have been raised over their heads, and an old tile, or piece of slate, carefully placed on the top, to keep them dry, for all florists are not Becks, capable of affording waterproof covering. Such is the interesting, innocent life, and part of the occupation, of a florist in February.

Judging by the few weeks I have been a reader of *THE COTTAGE GARDENER*, and though it is said to be dangerous to meddle with editors, still, I cannot help stating, that it appears to me the above class of plants is deserving of more attention than is paid to them, apparently, in its pages.—D. FERGUSON, *Stow, Buckingham.*

[We agree with Mr. Ferguson. In our first volumes every Florists' Flower was fully considered, but the time is come for more notes upon them.—ED. C. G.]

CETERACH OFFICINARUM.

In a recent number of *THE COTTAGE GARDENER*, I see a description given of the *Ceterach officinarum*, where it is stated, that "it seems incapable of bearing the colder climate of Scotland." I think this must be a mistake, as I have had it growing on a rockwork here for four years, and it stands the winter perfectly hardy. I am also informed, that it grows plentifully on some hills near Drumlanrig, in Dumfriesshire.—GEO. SMITH, *The Hirsell, Coldstream, Berwickshire.*

[We are much obliged by this communication. It is the first information we have met with of the *Ceterach* being a native of Scotland, but we have since heard from another correspondent (A. R.), who states that he also found it in Scotland on the ruins of Iona.—ED. C. G.]

USE OF EARWIGS.

ALLOW me to offer you a simple remedy for the Green-fly and Thrips. When I have a plant infested with these pests, I get a few Earwigs, and carefully place one or two under the leaves of each plant, such as *Cinerarias*, or *Gloxinias*, &c., and in a very short time the Earwigs will show battle against the insects; and in a day or two you will be agreeably surprised at their victory. This I found out by one getting, accidentally, upon a *Cineraria* which I was going to smoke under a hand-glass, when, to my surprise, not an insect was to be seen, but the Earwig alone on one of the under leaves, and quite contented.—W. HAWKINS, *Gardener to W. Whitney, Esq., Thorney Abbey.*

THE POTATO MURRAIN.

IN *THE COTTAGE GARDENER* of the 15th of January, a correspondent having thrown out the suggestion that the Potato Murrain is influenced by frost, has induced me to send you the following observations. There can be no doubt that the rustic fence and young shoots of the *Boursault Rose* did preserve the two rows of Potatoes from the attack of frost. It is now well ascertained that the first appearance of the murrain is not like an attack of frost. I have ever found the first signs of it to be a brown spot upon the leaf, which, if turned up, a yellow fungus will be found on the under side. On the appearance of this spot on the leaf, if the tubers are examined, they will be found to be already affected by a light blue spot upon the skin; but the leaves will not fall down for ten or twelve days after these appearances. If the writer of the article had examined the tubers on the day he first observed the frost, he would have found the disease had taken place some days previously to the appearance of frost. In all my observations, I have found that the Potato Murrain is influenced by the sun. Now, the rustic fence, and the young shoots of the *Boursault Rose*, in shading the two rows of Potatoes nearest the fence, protected them from the bright rays of the mid-day sun, when he at times sends forth his unnatural heat, as when we say "the sun is scalding." I have always observed, that where the Potatoes have been shaded from the sun they have been safe from murrain. In gardens where standard fruit-trees are standing, the shade from the trees has always preserved the Potatoes, while the crop in the other part of the garden was injured.

I may also mention, that the Bean crop is liable to the same disease as Potatoes, although it is not so general. In the year 1847, it was very prevalent in this neighbourhood. I had sixteen acres of Beans in one field; in the month of August they all became brown, and the growth was completely stopped, and the crop very much injured. The leaves all fell off, and their under side was covered with a yellow fungus. Now there was a plantation of trees ran along the south side of the field, and shaded about thirty or forty yards distance from it, and all along that side of the field the Beans kept their colour, a fine green, to the end of the season, and furnished a good crop, from being shaded from the sun.

Query.—May not the sun have more influence on the Potato Murrain than the frost?—ROBERT HOGG, *Bogan Green, Coldingham, N. B.*

QUERIES AND ANSWERS.

GARDENING.

PEACH-TREES DECAYING.—FREELY SETTING MELONS.

"I have a Peach-wall, which, a few years ago, was covered with large, healthy trees, but now some are dying off a limb at a time, and some are quite dead. The border is about eight feet wide, and I plant it as follows:—In the summer, early Peas, Cauliflower, and early Potatoes. In winter it has Brocoli and winter Spinach; in fact, being never bare. My gardener says it is cropping the border that kills the

freed, by giving them too much manure, and cutting through the surface roots. I told him I should write to THE COTTAGE GARDENER, and he said, you would say the same as himself. The trees are from fifteen to sixteen years old.

"I should be glad if you would recommend to me the best *Melons* that are easy to grow. I mean the best setters, as I cannot get much bottom-heat. I have the following:—*Bromham Hall*, *Trentham Hybrid*, *Cabul*, and *Rock*.—HEART OF OAK."

[Your gardener is quite right; but there are many places, where, do what you can, Peach-trees will decay after the time you name.]

The *Victory of Bath* and *Golden Ball Melons* are free setters, but so are the *Bromham Hall* and *Trentham Hybrid*, especially if the latter is grown on a trellis.]

BRUGMANSIA CULTURE.

"Having several *Brugmansias* in my greenhouse, of which the temperature has not been below 40° during the winter, all the leaves are dropping off, and the stems of some of them decaying through different parts. I can plunge them in a bottom-heat of leaves and dung. Would that bring them round?—C. M."

[The culture of *Brugmansias* has been several times given. The treatment must vary according to the time it is desirable for them to be in flower. Supposing your plants flowered in the autumn, or at the beginning of winter, the falling of the leaves told you the plants wished for a rest. The heat was quite sufficient to keep the plants healthy. The points of the stems dying would merely show that the points there had hardly been ripened. When resting, and all the leaves, or nearly all, are fallen, *Brugmansias* scarcely require any water. They are so accommodating, that they will thrive in your hotbed, and thus you will have shoots and flowers early; or, if you choose to wait longer, you may keep them in the greenhouse, potting and growing on, or turn them out-of-doors, in rich soil, in June, when they will bloom in the autumn out-of-doors, and in the first part of winter, if raised carefully and repotted. Supposing, now, that you fix upon the height of your stem—and recollect that the bloom is produced on the young shoots of the current year—all that you have to do is pruning so as just to leave as many buds as you wish for shoots, and when these have grown sufficiently you will have flowers, provided the stem buds were matured enough, and rising two or more years in age. When an old plant is obtained, all that is wanted is to snag in the head well back every year.]

FLOWER-GARDEN PLAN.—SEED OF VARIEGATED WHITE ALYSSUM.

"Do you consider the arrangement of flowers in the accompanying rough sketch a good one? The garden is a small one, in front of a parsonage house, and is on three sides surrounded by evergreens, with a mixed border of flowers in front of the evergreens. There is also a wide border not marked in the plan, with evergreens at back, and carriage drive in front, which it is proposed to plant in the following way, in the ribbon style, next the evergreens:—1. Hollyhocks and Standard Roses. 2. White Phlox. 3. Ageratum. 4. Tom Thumb. 5. Yellow Calceolarias. 6. Emma Verbena. 7. Variegated White Alyssum.

"The Variegated White Alyssum seeded in the garden last season, and many seedlings came up under the old plants with perfectly white leaves, but it was too late to save them, and so prove whether the shade had not affected the colour. Some seed is carefully preserved for sowing this spring, and the result will be made known to THE COTTAGE GARDENER, if worth notice.—G. S. W."

[The arrangement of flowers is very good for that style of garden, which we shall call the detached style, for want of a better name. The beds are laid down in groups, and each group stands on its own merits; and as every group is well provided for with the right kinds of plants, there can be no possible objection to the plan of not making any one of

the groups subordinate to the rest. The surrounding border is the key note for the planting of the beds; without that border, the two centre groups would be too glaring for the centre. The front bed, No. 1., however, will not do. Many have tried it—at Kew among the rest—but two good plants are only spoiled. *Geranium Flower of the Day* and *Verbena Venosa* make a caricature of the shot-silk bed.

Pray take good care of the seedlings of the *Variegated Alyssum*, and let us hear the result. No variegated plant that we know of comes true from seed, and this one we never knew to seed. We have heard of a Candytuft which turned variegated last summer, and the self-sown seeds from it are expected to come all variegated this season.]

FUNKIA ALBA CULTURE.

"In the autumn of 1852, I bought (for a franc), in Le Marche des Fleurs, at Paris, a beautiful white flower with a delicious odour. It is known in France as the *Ami Ricaut*, and I saw one in bloom in the open air. I brought mine home, and my gardener calls it *Funkia alba*. It has been divided. I have now four healthy plants, but never has it bloomed. Can you tell me how to treat it?—NOAH."

[If your plant is *Funkia alba*, it is the same as the White Day-Lily. All the leaves rise out of the ground from the roots; they are large and plaited, or ribbed; the flower-stalk rises from among the leaves with white, Lily-like flowers on the top; it is a hardy border-plant, and makes a large patch. Is that a picture of your plant? If so, the way to flower it is to plant it in a rich border, with a dry bottom, and where it is not shaded by tall plants; and, once planted, it requires to be "let alone" most carefully, and not to be disturbed upon any consideration. It was all very well to divide it till you had enough of it, but it will never bloom as long as it is disturbed, if it was for a thousand years. Let it have its own way in a free, open border, and after it is fairly established it will blossom every year.]

ROLLISON'S PURPLE UNIQUE GERANIUM.

"A lady will feel obliged by being informed how to improve two beds of *Rollison's Purple Unique Geranium*. The plants are always plunged in the beds, not turned out of the pots: still they do not flower sufficiently. Would a Purple Verbena, mixed with these, improve the appearance? If so, what purple would you recommend? or could any other purple flower be introduced that would mix and flower with the *Geranium*?—J. C. E."

[Unfortunately, there is no other plant that will associate with the *Unique Geranium* for a bed; not even a *Geranium* out of its own section, which is called the *Capitatum* section. There are the lilac, the scarlet, and the white *Unique*: the two former agree with the purple *Unique* in habit, and that is all their value: their flowers would not improve the bed. Indeed, the purple of *Unique* is so very unique that no other purple flower will agree with it in a mass or bed. This is a good time, indeed the best time, to cut down *Unique*; and as soon as it is in leaf again the whole of the old soil should be shaken from it. Then, if the roots could be got into No. 48-pots, all the better. Six weeks after that, a shift into 32-pots for plunging, all in good, yellow loam, and dry, rotten dung, well drained; and if the roots are good, the Fates could not hinder it from flowering very freely.]

FLOWER-GARDEN PLAN.

"I have been anxious to lay out a garden on a small lawn, measuring about forty-five yards by twenty-two yards, and shut in by shrubs; and the design given in the number for February 5th of THE COTTAGE GARDENER seems exactly the thing I want, at least, if it can be made upon a sufficiently small scale; but, being quite a beginner in gardeniug, I write to ask you to be good enough to give me a little further information, which may, perhaps, be useful to others among your readers also. The extreme length that I can devote to the actual borders of my garden is about forty-six

feet, and about half that, or a little more, in width. To introduce the design in *THE COTTAGE GARDENER* into this space, it would be necessary not to exceed two feet six inches in the width of either the *beds or paths*, which, I presume from the drawing, are to be each of the same width. Would a figure with beds and paths only thirty inches wide answer? and, if so, should the paths be grass or gravel? and if grass, should an edging of sand or lime be left, with an inner edging of Heather round each bed? and would box do instead of Heather? and what would the proper proportion for the width of sand or lime edging to a border of thirty inches?—H. S. H."

[Your space is quite large enough to admit the figure, and better if you give up the sand idea; but that is not the question in making a new flower-garden. Will you be content to grow only such flowers as are suitable for the reduced scale of the beds? It will go hard with you to manage *Petunias* in such small beds, and nothing stronger would do; those gems of the garden are only fit for large places, where they come in like "grace notes" in a tune of many parts. Four inches of white sand would be the proportion you ask for. It is costly, however, in many parts, and unless it is kept as clean and sweet as a drawing-room, it does not give the proper relish—so to speak.]

GRUBS IN LEAF-MOULD.

"I potted some *Gloxinias* a fortnight ago, and now the soil in the pots has the appearance of being full of worms, but on examining them I found the pots swarming with the enclosed grubs. I got as many as a pint of them out of ten pots; none of the pots exceeding nine inches in diameter. On examining the soil, I only found them in the leaf-mould, which appeared to be almost full of them. The soil has been in the shed for nearly three months. I shall feel greatly obliged by your informing me what they are, and whether the larvæ will be likely to feed upon the roots of the *Gloxinia*, and if the insect, when perfect, will be injurious to plants?—W. CRAGG."

[The black grubs sent by W. Cragg are the larvæ of the St. Mark's Fly, *Bibio Marci*, a black, sluggish insect, which flies in May, and deposits its eggs in vast numbers in earth saturated with decaying vegetable matter. When the grubs have eaten this, they will certainly attack the roots of plants, as Bouché, the celebrated gardener of Berlin, had his *Ranunculus* beds much injured by them for several successive years. He cured the mischief by repeatedly changing the soil: the perfect insects are also very easily captured, their black wings and slow movements rendering them very conspicuous objects.—J. O. W.]

THE POULTRY CHRONICLE.

POULTRY SHOWS.

ANERLEY. July 15, 16, 17, and 18.

BRISTOL. June 25th and 26. Sec. Robert Hillhouse Bush, Litfield House, Clifton, Bristol. Entries close 1st of June.

ESSEX. At Colchester, 8th, 9th, and 10th of January, 1857. Secs. G. E. Attwood, and W. A. Warwick.

NORWICH. June 20. (Norfolk Agricultural, for Subscribers only.) Sec. Mr. E. C. Bailey, Little Oxford Street, Norwich. Entries close May 31st.

WELLINGTON, SALOP. At Wellington, Salop, 26th and 27th of Feb. Sec. Mr. T. W. Jones. Entries close Monday, February 18th.

WHARFDALE. April 18th, at Otley. Sec. Mr. T. Metcalfe, Otley.

WINDSOR POULTRY EXHIBITION. At Windsor, 4th, 5th, and 6th of June. Secs. Thos. Chamberlain, and Henry Thompson. Entries will close May 10th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

MANAGEMENT OF FOWLS FOR EXHIBITION.

ROBERTSON, in the preface to his "History of Charles V.," says—"The warlike nations were not subjugated by one defeat, and the Romans gained the victory at last only by discipline." We shall not stop to inquire what the famed historian would say if he could know his elaborate preface served to furnish the subject of a poultry paper; but, thinking the application of it might be profitable, we have used it.

He was writing after the events of which he treated had happened, and could review them calmly. So we, freed at last from running from one Show to another, can sit down, balance the achievements and defeats, and inquire into the causes. We can hardly hope to introduce any novelty, but it is possible we may say something to the point; we may discover why victory deserted a favourite standard—may tell the cause of defeat, or may teach others how a transient gleam of success may be converted into permanent sunshine.

The nations of which Robertson treated, were, in the particular case to which he alludes, on an equal footing with regard to the great essentials of courage and warlike properties. But one brought the advantage of discipline, which enhanced the qualities; the other depended on the bare profession of them. In the same way, two yards will be tenanted by birds of the same quality: one will count its triumphs by a goodly array of silver cups; the other will be continually struggling, but will seldom rise above mediocrity. The difference will not be in the birds, seeing we admit they are equal. It will be in discipline, or management.

Wherever there is great honour or profit to be gained, there will be great competition; and where this exists, while the neglect of any precaution may cause failure, the observance of every rule, and the skilful possession of every advantage, will hardly ensure success. In a recent number of this periodical, a writer, who signed himself "Sussex," gave valuable hints about breeding the fowls intended for competition, and our present remarks will, therefore, tend shortly to their management previously to their suffering the ordeal of a show.

All their energies will be required to support them, and the slight difference between two pens of almost even merit will sometimes be caused by the cheerful, we had almost said confident, look of the birds in the more distinguished one. Now, as confinement acts on their spirits, and makes them dull, as it causes the brilliancy of their feathers to become dim, it should be avoided. Their food should be light, nourishing, given frequently, and in small quantities. In ordinary times, no stimulant of any kind should be used. Their training should be that of a man about to run a race. Make the greatest possible muscle and sinew, and avoid the semblance of fat. They should have a run to themselves, and be accustomed to be always together. This is discipline, and most wise in the end.

Let us see the other side. The number of fowls all running together; fed, but little cared for till they are wanted; the best birds unknown and unmarked; scrambled up at the last, and put up to be over-fed; their scanty bodies covered with loose fat to make up the deficient muscle. The cock scarred from hard encounters, and his comb still bearing the unhealed marks of the last fight; his tail-feathers broken, and all his plumage faded. Put with the wrong mates, he beats and tears them, till scalped heads and ruffled feathers excite the pity of the Judges, instead of their admiration; and although by breed and by nature as good as the others, they pass unnoticed. There was no discipline, and defeat was the consequence. We have been content to point out the more glaring mistakes in this paper, and, during our leisure time, purpose reverting to the subject frequently, feeling, that although great success generally attends those who can afford to buy the best birds, yet, with care, prizes are within the reach of all.

A GOOD SUGGESTION.

I AM somewhat anxious to suggest, through the medium of your generally-perused and really useful periodical, a hint for an *extra* item in management connected with our Poultry Exhibitions, well knowing how really desirous you are to serve in every possible way the general interests of such societies. I trust, therefore, you will kindly permit this short intrusion upon your space devoted to Poultry matters, relating, as it does, to the welfare and personal convenience of every Poultry Amateur in the kingdom.

The plan I propose, if *UNIVERSALLY* adopted by the managing committees of our Poultry meetings, would, I feel confident, render capital service to the general cause; and the result be an extreme improvement upon our present

imperfect regulations. If you should kindly submit it for the consideration of those amateurs who are in the frequent habit of exhibiting at our various local shows, the proposal will, I am sure, be hailed with pleasure, and still more particularly by those who have personally suffered from so serious and uncalled for an inconvenience; the future repetition of which, I thus hope and endeavour to obviate. An extreme case has just come to my knowledge, and will afford every needed explanation.

A gentleman forwarded a considerable number of pens of poultry to an exhibition where I happened recently to have awarded the premiums, and all were duly and safely restored to their owner "immediately on the close of the show," EXCEPTING *the one most highly valued*, and which fowls had just proved themselves most pre-eminently successful. These being *missing*, of course, caused proportionate anxiety, they having been "entered" for two other meetings. The proprietor's residence was several miles from the nearest railway station, and a man was despatched *twice again* the following day to see if they had arrived. "They were not come." A letter was then forwarded by post, complaining of their non-arrival, and requesting a telegraphic reply to — Station (which was fully *seven* miles farther from the house, but the *nearest* to which they could convey so *speedy* information), stating *when* they were returned. By some egregious error, the reply thus sent was simply—"they all went away together," which naturally redoubled the efforts to find them on the part of their owner. As the rail conveyance had *changed* at Birmingham, he at once proceeded by the first train, to ascertain if the delay rested there, but obtained no information whatever. He had been thus engaged at Birmingham several hours, when I accidentally caught sight of him, almost at the instant my train was setting out, and in the brief conversation that ensued, soon explained away the difficulty altogether. The fowls had been "claimed;" and the circumstance was easily called to my mind, from the party who *now* possesses them having personally consulted me on the expediency of purchasing them prior to doing so. How it occurred the telegraph reported the fowls sent back, I cannot myself determine, but naturally presume it must rest entirely with some careless oversight on the part of the clerk in the "sale office." The gentleman returned home apparently well satisfied with my unexpected explanation, but still not a little ruffled in temper, at the needless trouble he had endured. I have been informed, a very angry and remonstrative letter to the committee, written on the impulse of the moment, was unfortunately posted the same evening, and the reply, consequently, was not *very* conciliatory. "It must be evident it was altogether a *mistake*, and that was all they could say about it."

Now, if committees would only incur the really very trifling expence of having a few *printed* forms *the same size as the cards*, stating—"The Managers of the Poultry Show just held at —, beg to inform the exhibitor, pens numbered — are 'claimed,' and, therefore, will not be returned. A. B., Honorary Secretary," no such vexations could possibly ensue. The "filling up" would be so easy and expeditious—for only few would, generally, be required—that it could not delay the *repacking* for a moment, as the "salesman," in all instances, could get his forms ready previously to the final close of the exhibition.

These notices might, with a little thin glue, be *instantaneously and firmly* affixed so as to cover the upper side of the direction cards—PRIOR TO TURNING THEM—as the address previously written by the proprietor himself for their return is all that *now* remains necessary to be preserved uninjured and legible. A notice of this brief kind, attached to one of the baskets *really returned*, would *fully* explain the absence of those disposed of; or, if an exhibitor's competition was confined to a single pen, the same might be enclosed in a blank envelope by post with like effect.

How endless a number of objectionable heart-burnings would *thus* be prevented, and none of those ill-advised wranglings take place, that must eventually cause unavoidable regret *even among those engaged in them*; whilst such intemperate out-bursts not unfrequently sever friendships, that otherwise might possibly have continued lasting and unbroken for many years.

I will merely add, in conclusion, were the case I have

mentioned a *solitary* one, I would not have publicly intruded any comment whatever; but I am compelled to acknowledge it is only an instance among many that have occurred quite recently; and one, I think, well deserving the prompt attention of the Poultry world.—EDWARD HEWITT.

PIGEONS AT POULTRY SHOWS.

And I will teach thee to coz, to shame the Devil—by telling truth—Oh, while you live, tell truth and shame the Devil.—*Shakspeare.*

I ALLUDE, of course, to the "Gentleman on the Committee, who keeps Cochins, and pooh, poohs Pigeons." Now, let me tell the "Lover of useful Poultry," that he shows a sad want of controversial tactics, when he has recourse to misrepresenting his opponent. Depend upon it, it will always fall doubly heavy upon him; while the opponent comes forth in all the strength of injured innocence—enlisting the sympathy of truth, in his favour. Thus, the "Lover of useful Poultry," misrepresents Tristram Shandy—making him to insist that Pigeons ought ever to be made *the* chief feature at all Poultry Shows! Whilst I am only interceding for Pigeons—for their being duly recognised, not only at some, as they are at present, but at all Poultry Shows that have any pretensions to respectability—"urging upon Committees not only to 'admit Pigeons,' as the humiliating phrase goes, but to make them *a* chief feature of the shows."

Certainly;—instead of thrusting them out altogether, as is the case at some shows; or thrusting them into corners, as they are at others; by all means let these birds be duly encouraged, placed, and seen. They are but small in size, and small, comparatively, in number; they require a good light—let them but have it;—they require not much room; and trust me, they will soon attract attention and be a chief feature of any show. *Let them have prizes according to their merit, as compared with Poultry*; what that merit is, I have already shown—proved, incontestably proved. I challenge any one to disprove what I have, (at least disinterestedly) advanced; for I am, myself, a Poultry Amateur; but not a covetous, or unfair one; that would keep all the good things for Poultry, and let Pigeons feed upon the crumbs falling from the table.

But you are facetious, my good Sir, let me expose your ignorance. You sneer at the Pigeon fancier, giving his time to "dwarfing the beak of the Tumbler;" had you known any thing of the matter, you would have added, and in giving the Tumbler a short and rounded head—a short and round body (as well as its beautiful tricoloured marking).

Now Sir, pray throw up your own awl, and then a ball of your wax, into the air, and see which will revolve the better;—the ball of wax to be sure;—because it is round. Do you now see, why fanciers breed their Tumblers as rounded, so to speak, as possible? that they may tumble the better.

You make the same bald attempt at wit, when you talk of fanciers devoting their efforts to the length of the Pouter's toe-nail. Do you not know, that exact "marking," or disposition of colour, is more difficult to obtain in the Pouter, than in any other bird; whether in Pigeons, or in Poultry? Do you know nothing of length of body—of smallness of girth—of length of legs—of carriage, &c.! The toe-nail is your own transcendental idea—the wit of the "Committeeman, in the white waistcoat, who pooh poohs Pigeons!!"

But, you besprinkle us with more Attic salt—most keen wit—and babble about the flesh on the face of the Carrier. Does the fancier make no account of the length and straightness of the bird's beak—the length, narrowness and flatness, of its head—the neck being thin and fine—the pinions being strong and powerful, &c., in fact, does he not labour to *bring out every property of form which will conduce to swiftness and to power of flight*? And does not this flesh on the face, formed as it is, wedge-shaped,—beginning in a point in front, and gradually enlarging till it joins the head,—does not this contribute to the purpose?

So, I ought to have explained to your fumbling faculties, that the "properties" of the Pouter, just named, all contribute to the best displaying, of the birds peculiar nature of "showing"—that is, to the inflation of his crop, and to his proud "attitudenizing."

But, you tell us, that you are a "Lover of useful Poultry;"

of course a practical man—a very “Mr. Meagles,” in Little Dorrit. Let us look at your own doings, my dear Sir, in your Poultry Show; from which you would exclude Pigeons. And, as a set off to “dwarf beaks,” “toe-nails,” and “fleshy faces” in Pigeons;—let us ask you, what special advantage there is, in “dwarfing” your Bantams—your Sebrights, your black and your white Bantams! What special *use* there is, in giving your efforts to produce a huge bunch of feathers, on the head of a Polish fowl; its grand property! What sort of employment of time it is, to expend it in merely obtaining a spangled feather, in the *Golden Pheasant*; or a pencilled one, in the *Pencilled Dutch*! What more peculiar charm is there, in a fifth toe of the Dorking, than in your own account of toe-nails, in the Pouter! And what particular advantage has the white, or *mutton-fat* face, of the Spanish, over the fleshy face of a Carrier!

Now, we will strike the balance—and *tekel, tekel* will be your dole.—You Sir, “will be found wanting.” The Pigeon fancier bestows all his efforts to *assist, to develop the instinct, or the peculiar habits* of his Tumblers, Carriers and Pouters—and which, I need not recapitulate.—Tell us now, on your side, the usefulness, (for *you* are a lover of the *useful*, you know)—I say the usefulness, of your dwarfing Bantams,—of your immense Polish top-knots—of the fifth claw of your Dorkings—and of the mutton-fat faces, of your Spanish!!

I will now, Sir, let you off—but with this special caution and advice. Ride your hobby-horse as far and as long as you like;—but ride him quietly, and discreetly, on the road; and do not bespatter other people with your dirt, because their hobby-horses are not of the same colour as your own. And further, do not insult even a poor man on the road, or insist upon having it all to yourself, because he only rides a donkey. He has as much love for his useful beast, as you have pride in your mettlesome Tit; which, it is evident, is somewhat of an unruly temper; or, you know not how to ride him, as becomes a fair and just rider.

Pray let us have no more cant, about “loving the useful.” Are 20 pounds given for a pen of Bantams, as at Liverpool, because of their usefulness? Are 30 pounds given for a pen of Dorkings, because they will furnish larger chickens for the table? Are £100 given for Black Spanish, because they too, will furnish eggs or chickens, more plentifully for the larder? No—but *their chickens will sell for more money—their eggs line the purse!* The larder, forsooth! pooh!—their usefulness!—fiddlesticks! No one more deeply regretted his Spanish £100, than Mr. Davies; ’twas his own fault, and he should have priced them at £1000. The value, of this fine “usefulness,” is but Hudibrastic then, after all, and

The true usefulness of a thing
Is, as much money as ’twill bring.

In conclusion, and in exculpation;—for this “Lover of the Useful,” talks of my “considering my own geese as swans”—that, “if I will send Pigeons to Poultry Shows, I must be content with the inferior position I am placed in”—“not blame the Judges,” and so on. Bless the man! I have no Pigeons to show! not one worthy of even the most inferior position.

But, as to finding fault with the “Brummagem judgment” of Pigeons, (oh, “let the galled Jade wince”) that I have done—aye and done to some purpose too—and received the thanks, not only privately, but in some cases publicly in this Journal, from the first Pigeon fanciers. Let me conclude, with one more word of advice, to this “Lover of the Useful”—If he cannot understand, how any one can write from disinterested motives,—if he cannot understand how I, Tristram Shandy, can write only from a love of justice and of right,—let him, by all means, hold his peace; otherwise, it may excite my natural suspicion, that a Lover of the Useful, is not, necessarily, a Lover of Justice.—TRISTRAM SHANDY, *Hull*.

A SHOW FOR PRIZE BIRDS ONLY.

In your description of the Liverpool Poultry Show, you pictured it as the meeting of giants, the battle-field for the victors of the season, where they contested for the final supremacy. Now, it cannot be denied, that it is very

desirable that at the close of each season some such contest should take place; but surely all the giants, as you term them, ought to have equal chances in the contest; it is hardly fair to handicap HALF of them, by placing them in dark, lower pens, where the judges themselves state it is almost impossible to ascertain the merits of the pens. If a contest of this sort is to take at Liverpool, or elsewhere, the committee of management ought to put *all* the birds in upper pens, with equally good light; and until all are put in that position, I contend that the competition *cannot* be fair. High entrance fees will be willingly paid if proportionate accommodation is provided. If the Liverpool committee will not provide that accommodation, there will be an excellent opening for any enterprising committee to open a real fair field of battle to the victors of the season only, and at any entrance fee they like to charge.—W. W.

[We think this suggestion of a deciding competition for none but victors, (perhaps “Highly Commended” birds also might be admitted,) is a very good suggestion. It is like the deciding contests at coursing meetings.—Ed. C. G.]

THE SILVER POLAND CLASS AT THE LIVERPOOL SHOW.

OBSERVING the numerous complaints as to mis-judgment, which have lately appeared, and as there is no appeal to a committee from the Judges’ awards, an aggrieved exhibitor has but to look to the bar of public opinion for justice. I, accordingly, beg leave to bring before the notice of your readers the case of the award of the Cup in the crested classes at the late Liverpool Show. We all know, that in the Polands, whether of the Silver or Golden variety, the beauty and perfection consists in the accuracy and regularity of the markings, particularly of the neck and breast, which presents the largest field for displaying them. What, then, is to be said of an award that throws all these aside, and gives the prize to a bird with a *black breast*, such a bird as no breeder would allow into his yard? Did any one ever hear of such a thing as a *Black-breasted Silver Poland*? The owner of this fortunate bird, the catalogue informs us, was Mr. S. T. Baker, King’s Road, Chelsea. What would the public say, if a prize was awarded to a *Black-breasted Sebright Bantam*, passing over a host of accurately laced ones? This was precisely the case; a member of the committee was appealed to, and his attention called to the fact, that the award was contrary to the rules, but he declined to interfere; the only course, therefore, to be taken is to lay the matter before the readers of THE COTTAGE GARDENER.—R. WILLIAMS, *Dublin*.

[As a visitor at the late Liverpool Poultry Exhibition, perhaps a few remarks on the accusation preferred by R. Williams, Esq., of Dublin, against the decision of the Judges in the Silver Poland class will be kindly granted me. I confess that gentleman’s letter has somewhat surprised me, whether in respect of his expressed opinions of the most important essentials in a Poland variety, or his most extraordinary query, “Did any one ever hear of such a thing as a *Black-breasted Silver Poland*?” To this, I willingly reply,—*Never*, until the thought originated in the mind of Mr. Williams, did I hear of “such a thing” as he describes; and I will also add (that though for many years a careful breeder of this really beautiful variety of fowls, and carefully overlooking the specimens at Liverpool), I have never SEEN such a bird as he asserts *there* secured the first premium. As regards the “begging question” of what the public would say were a prize awarded to a *Black-breasted Sebright Bantam*? I believe such an event is so *utterly improbable*, that it will be quite sufficient time to cope with the difficulty *when* it really occurs; and, with that conviction, return to the subject more especially mooted in respect of Silver Polands. With the *ownership* of the successful birds, the Judges had, naturally, nothing whatever to do, as it formed no part at all of their duties; nor do I see any plausible reason why the name of Mr. Baker, of Chelsea, should have been introduced in any way as connected with the transaction. It may, however, possibly attract attention to his really beautiful birds, and give any

inquirer, who thinks fit to take the trouble, the opportunity of *convincing himself* that the bird in question was very far removed from a "black-breasted one." To call it such, is a sad exaggeration. I admit, it was darker than it should have been as a *perfect* exhibition bird; but as one of the most successful prize-takers in Silver Polands (who have *bred* their own stock), I should not only not object to take the bird "into my own yard," but should anticipate the best possible results from his being there. It is well known, the perfection of comb, wing-markings, and those of the tail and tail-coverts, are *each* or *any* of them equal in importance to that of the breast feathers, so particularly enforced by Mr. Williams as the most essential; and if that gentleman had carefully examined every pen present, he would have easily found far more objectionable feathers in every competing pen than in the successful one. From what transpired at the Liverpool Exhibition, much general attention was purposely directed to this *especial* pen, and how any individual could declare the cock to be "black-breasted," seemed to excite astonishment to those who, at the very time, *had the bird before them*, and, therefore, the only positive means of forming unbiased opinions. The opinion of several amateurs was requested since the show, and I have not received one single support of the statement Mr. Williams has originated, nor do I conceive any gentleman has an authority to assert, positively, a statement *incapable* of verification.—CENSOR.]

LONDON MARKETS.—FEBRUARY 25TH.

COVENT GARDEN.

The supply, generally, has fallen off this week, with the exception of *Potatoes*, trade for which continues heavy. The sorts of *Pears* are now comparatively limited, the best in use being *Ne plus Meuris*, *Beurre Rance*, and *Easter Beurre*. A good supply of Cornish *Brocoli* still comes, and meets with a ready call at former prices. Of *Forced Vegetables* quotations remain about the same.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s.
" dessert	6s. " 10s.
Pears	8s. " 12s.
Peaches, per doz....	—
Nectarines, per doz...	—
Plums, per sieve ...	—
Pine-apples, per lb...	6s. " 8s.
Grapes, per lb.....	2s. " 8s.
Foreign Melons, each	2s. " 4s.
Figs.....	—
Gooseberries, per qt.	—
Currants.....	—
Raspberries.....	—
Strawberries, per pot	—
Oranges, per 100	4s. " 10s.
Lemons	6s. " 12s.
Almonds, per lb.....	2s. " —
Nuts, Filberts, per 100 lbs.	50s. " 60s.
" Cobs, ditto ..	60s. " 70s.
" Barcelona, per bushel.....	20s. " 22s.
Nuts, Brazil, per bushel.....	12s. " 14s.
Walnuts, per 1000 ..	9s. " 12s.
Chestnuts per bushel	12s. " 20s.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d.
" Red, per doz.	2s. " 4s.
Cauliflowers, per doz.	4s. to 6s.
Brocoli per bble	1s. " 2s.
Savoy.....	1s. " 2s.
Greens, per dozen bunches	4s. " 6s.
Spinach, per sieve....	— " 4s.
Beans	—
French Beans, per hundred	3s. " 4s.
Scarlet Runners	—

Peas, per bushel	—
Carrots, per bunch ..	4d. " 6d.
Parsnips, per doz....	6d. " 9d.
Beet, per doz.	1s. " 1s. 6d.
Potatoes, per cwt. ..	3s. " 6s.
Turnips, per bunch..	" 3d.
Onions, young, per bunch	1d. " 2d.
Leeks, per bunch	2d. " 3d.
Garlic, per lb.	6d. " 8d.
Shallots, per lb.	4d. " 6d.
Horseradish, per bundle	1s. 6d. " 2s. 6d.
Lettuce, Cos, per score	6d. " 1s. 6d.
" Cabbage....	6d. " 8d.
Endive, perscore ..	1s. 6d. " 2s.
Celery, per bunch..	9d. " 1s. 6d.
Radishes, Turnip, per dozen bunches ..	1s. " 1s. 6d.
Water Cresses, per dozen bunches	6d. " 9d.
Small Salad, per punnet.....	2d. to 3d.
Artichokes, each	3d. " 6d.
Asparagus, per bundle	5s. " 8s.
Sea-kale, per punnet	2s. " 3s.
Rhubarb, per bundle	1s. 6d.
Cucumbers, each	1s. " 3s.
Vegetable Marrow, per dozen	—
Tomatoes, per punnet	—
Mushrooms, per pot	1s. 6d. to 2s.

HERBS.

Basil, per bunch	4d. " 6d.
Marjoram, per bunch	4d. " 6d.
Fennel, per bunch ..	2d. " 3d.
Savory, per bunch ..	2d. " 3d.
Thyme, per bunch ..	2d. " 3d.
Parsley, per bunch ..	2d. " 3d.
Mint, per bunch	2d. " 4d.

GRAIN AND SEED.

FRIDAY, FEBRUARY 22.—The supplies are not very abundant from any quarter. Oats from abroad have reported to the extent of 18,530 quarters, and Wheat 4250. This morning there is a firmness in the Wheat trade, and a fair business has been done in floating cargoes. Barley meets an improved attention for Grinding varieties. Oats well support the late improvement. Beans, Flour, and all other articles fully support the quoted currency.

POULTRY.

As the supply continues moderate, and the demand increases, prices rise. The fine weather, however, gives us reason to hope that we shall not this year have to record scarcity, almost amounting to famine, as we did in 1855.

Large Fowls 6s. 0d. to 6s. 6d. each.	Teal 2s. 0d. to 2s. 3d. each.
Smaller do. 4s. 0d. to 4s. 6d. "	Guinea Fowls. 3s. to 3s. 6d. "
Chickens. 3s. 6d. to 4s. 0d. "	Pigeons.... 0s. 8d. to 0s. 9d. "
G. Geese..... 8s. 6d. to 9s. "	Rabbit.... 1s. 5d. to 1s. 6d. "
Ducklings 4s. 6d. to 5s. 0d. "	Wild Ditto 10d. to 1s. "
Wild Ducks 2s. 6d. to 2s. 9d. "	Larks 2s. to 2s. 6d. per doz.
Widgeon.. 1s. 6d. to 2s. 0d. "	

TO CORRESPONDENTS.

CAUTION.—We beg to caution our readers against a class of traders who are offering for sale Plants, Roots, and Trees, which are brought from France, and for which they realize large prices under the pretext that they are *new* or *rare*. Many have already fallen victims to them, and, before they have an opportunity of discovering how they have been cheated, the parties will have decamped.

SUNFLOWER SEED.—R. L. and others will be much obliged by information, from reliable sources, as to the employment of this seed as a food for Poultry, Pigs, and other stock. We published what we know upon the subject in our Numbers 310 and 334.

NAME OF SEED (H. R. M.).—We believe the seed you sent us is of the West Indian Ebony-tree, *Amerinum ebenus*, or *Brya ebenus* of *The Cottage Gardeners' Dictionary*. The seed-pod would decide the point. It is not the true Ebony of commerce. The tree is common in the West Indies. The flowers are in the shape of Pea flowers, yellow, and sweet. You can raise plants of it in a Cucumber-bed, and keep them in a stove for many years; and the leaves are handsome, but it will never give you blossom in an ordinary stove. It will grow in the same kind of soil as Geraniums or Oleanders. Do not more than just cover the seeds, and give them but little water. A bit of moss on the top of the pot will keep the earth moist enough in a frame; but remove the moss as soon as you see the seeds heaving up the surface of the soil, and if the husks rise on the seed-leaves, as they sometimes do in this class of seed, you must act the part of a good surgeon, and split the husk with the greatest care and nicety, by the help of a pair of sharp-pointed scissors, so as not to hurt the seed-leaves; for if they go, all is over with the plant. When the seedlings are four inches high, pot them off into single pots, and after that treat them in the common way of ordinary stove plants.

POULTRY-HOUSE (A. L. P.).—In "The Poultry Book," pp. 17–19, and in other parts of that volume, you will find drawings and descriptions of various poultry-houses. They are too long for us to extract.

ACCOUNT-KEEPING.—L. G. would be much obliged to any correspondent of *THE COTTAGE GARDENER* recommending a simple printed form for keeping accounts of dairy produce; also, of poultry, or, indeed, of the general working of a small farm.

DISEASED SHANGHAES.—"I have some very fine white Cochins fowls of last year's rearing. Several of them have died after seven or eight months' old, in this way:—The back very weak, combs turn black, and the neck appears forced into the crop, or as if the crop was well filled; sometimes water running from the beak. They will stand about in this way a week, or longer, and then die. There is one now has been so several days.—AN ENGLISHWOMAN."

(The diseased birds are evidently suffering from some error in diet or management. Are they fed on unnatural food? Or are they overcrowded in a small run? There must be some such cause to account for several having died with similar symptoms. I should recommend an attentive search for the cause of the disease; and to any that may be suffering at present, a grain of calomel every night, for three nights, as an alternative, or ten grains of jalap every other night for a week.—W. B. T.)

DESTRUCTION OF INSECTS AND MILDEW (J. S.).—If you possess a cheap recipe for this purpose, and effectual as you state it is, prepare some for sale, or publish the recipe.

POLAND AND WHITE DORKING FOWLS (L. H.).—Write to Dr. Horner, Hull, about Polands; and Mrs. Mills, Bisterne, near Ringwood, Hants, about the White Dorkings. What do you mean by a Silver-pencilled Poland?

MARINE AQUARIUM.—An *Old Subscriber* will be much obliged by some information respecting a *Marine Aquarium*. What plants and fish will live with Sea Anemones without requiring the sea-water to be changed? and where the plants may be procured?

WORK ON THE MICROSCOPE (A. R.).—Buy Hogg "On the Microscope." Thanks for the note about the *Ceterach officinarum*.

YOUNG GARDENERS.—We are very much gratified by hearing from many of these rising young men that they have benefited by Mr. Appleby's advice to them.

HERACLEUM GIGANTEUM.—Let *An Old Subscriber* send his address to "G. W. Johnson, Esq., West Highlands, Winchester."

PRESERVING EGGS (A. S. U. B.).—It is not necessary to keep eggs from the air. Frost, or very hot sun are the only things to hurt them; neither is it necessary to turn them often. Take your cue from a hen that steals her nest in a hedge. The eggs lie there till she is disposed to sit. Pheasants and Partridges the same. They seldom fail to hatch.

COLOUR OF SHANGHAES' EYES (Idem).—It is not necessary that the eyes of Cochins Fowls should match. A *twisted claw* is scarcely to be termed an objection at all, unless the fowl is lamed by it. To recommend a *cross with Game Fowls*, we should be informed what object was sought by it. If to improve them for the table, we should advise to cross with the Grey Dorking.

CROSS BETWEEN THE GAME AND MALAY (*Constant Reader*).—The slightest cross of Malay in a Game Fowl is perceptible, because a coarse comb, and unkind, cruel face, takes the place of the gallant and lively looks peculiar to the latter. A Duck-winged Game cock should have a straw hackle, black breast, red saddle, and *duck-wing*.

WHITE BANTAMS AND SILKY BANTAMS (*Idem*).—These are distinct breeds. The latter, as their name implies, have silk instead of feathers. Their combs, faces, bones, and flesh, are all blue. The Spanish is the only breed where the combs of the hens should droop, while that of the cock is upright. The description of the case of your hen gives us a bad opinion of it. We have had many such without being able to effect a cure. Wash freely with alum and cold water, and keep the body open with castor-oil.

CHARACTERISTICS IN A PEN OF GAME FOWLS (*Tyro*).—To match a Black-breasted Red Game cock put brown hens with lighter brown breasts and hackles. To Red-breasted cocks put dark hens with lighter hackles approaching to golden colour. To a Duck-wing cock put grey hens, pencilled hackle, and slight tinge of salmon colour on the breast. Uniformity of colour in the legs of a Game pen is more important than a shade in the colour of the hens. In that latitude is always allowed, but not a glaring discrepancy.

WOOD-ASHES (*Omicron*).—We do not think that Wood-ashes would prevent the appearance of Caterpillars upon the leaves of Gooseberry and Currant bushes, but it is an experiment very easily tried.

ROSE-CULTURE (*Harriet C. A. L.*).—We know of no cheap trustworthy separate work upon this subject. Look at the article *Rose* in "The Cottage Gardeners' Dictionary." There is no better monthly Calendar at present than Abercrombie's "Gardener's Pocket Journal."

ADDRESS (*Aster*).—Mr. Chater, Florist, Haverhill, Suffolk, is his proper address.

NAMES OF PLANTS (*P. B. L.*).—As near as we can make out from mutilated specimens. 1. *Pinus insignis*. 2. *Pelargonium* species. 3. *Mentha Rotundifolia*, var. *variegata*. 4. *Begonia Hydrocotylifolia*, var. *hybrida*. 5. *Oeschynanthus pulcher*. 6. Unknown. (*E. A. H.*).—Your plant from Paris is *Cuscuta coccinea*, a pretty annual to be found named in all our seedsmen's lists. About half-a-dozen seeds, sown in a 6-inch pot in the first half of April, and brought forward in a very gentle hot-bed, will produce plants to turn out into the borders without disturbing the plants, towards the end of May. This is better than transplanting the seedlings singly. (*J. P.*).—Yours is *Aster agrophyllus*, or Musk-scented Michaelmas Daisy. (*G. Curzon*).—1. *Origanum dictamnus*? but certainly an *Origanum*. 2. *Omphalodes verna*, a very pretty hardy plant for the sunny side of a Rockery.

LAWN (*L. S. G.*).—Nothing will kill the Daisies but having them rooted out. Two women will soon remove them all. Then, after giving a dressing of earth, but no manure, sow a mixture of the grass-seeds recommended by Mr. Beaton a few weeks since. Sow them in March, or early in April. *Hogg's Edging Tiles*, now advertising in our columns, will suit you.

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Advertisements.

WILLIAM B. JEFFRIES' Arboretum

Nurseries, Ipswich, begs to offer the following CHOICE PLANTS, &c., the present being the best time for purchasing such to insure a fine display of Flower for the ensuing Summer:—

	Per doz.
Geraniums, fine vars.	6s 0d
Ditto, fine Show vars., such as Attraction, Optimum, Bride of Abydos, &c. &c.	9s 0d
Fancy Geraniums, such as Advance, Magnum Bonum, Lady Hume Campbell, &c. &c.	9s 0d
Geranium Lady Plymouth, fine for edging, beautifully sweet-scented, variegated foliage	6s 0d
Cinerarias, such as Lady Camoys, Mrs. Beecher Stowe, &c. &c.	6s 0d
Azalea Indica, fine, strong plants, 6 to 9 inches, such as Ivoryana, Variegata, Apollo, Prince Albert, &c. &c.	9s 0d
Primula, double purple and white, fine	18s 0d
Dielytra spectabilis, strong	6s 0d
Mitraria Coccinea, strong	6s 0d
Deutzia Gracilis, full of flower-buds,	9s 0d
Ditto, ditto, smaller	6s 0d
Ceanothus Dentatus, beautiful for a wall, 1 ft. 1s. each, or	9s 0d
Cupressus Funchris, a beautiful hardy Coniferæ, 1 ft.	12s 0d
Delphinium Hendersoni, the finest of all the tribe, each 1s. and 1s 6d.	
Hardy Herbaceous Plants, ditto for Rock-work, doz. 4s. and 5s 0d.	

CHOICE FLOWER SEEDS.

Primula, white and red, from the finest fimbriated flowers ever grown, per packet, 1s. 6d. Balsam, the finest Camellia flowering, 10 splendid vars., 1s. 6d. Calceolaria and Cineraria, from W. B. J.'s splendid flowers which gained so many prizes and certificates last year, 1s. 6d. and 2s. 6d. Phlox Drummondii, best mixed, Portulacca ditto, Petunia ditto, Maurandia, Whitlavia grandiflora, Calandrina umbellata, Leptosiphon aureum, with many other choice varieties, per packet, 6d.

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A Manual of British Butterflies and

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Agent for London: G. COX, 18, King Street, Covent Garden.

WEEKLY CALENDAR.

D M	D W	MARCH 4—10, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
4	Tu	Helophorus nubilus.	29.576—29.573	49—27	S.W.	00	40 a 6	44 a 5	6 10	27	11 52	64
5	W	Helophorus Fennicus.	29.793—29.730	53—26	S.E.	—	38	45	6 34	28	11 38	65
6	Th	Spercheus sordidus.	29.866—29.851	51—23	N.E.	—	36	47	sets.		11 24	66
7	F	Berosus luridus.	29.892—29.816	46—22	E.	—	33	49	6 a 52	1	11 10	67
8	S	Sphaeridium scarabaeoides.	30.086—30.066	45—18	N.E.	—	31	51	8 22	2	10 55	68
9	SUN	5 SUNDAY IN LENT.	30.063—29.894	41—27	E.	—	29	52	9 52	3	10 39	69
10	M	Cercyon quisquilius.	29.838—29.754	40—17	S.E.	—	27	54	11 23	4	10 24	70

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 49.3°, and 32.3°, respectively. The greatest heat, 68°, occurred on the 9th, in 1836; and the lowest cold, 7°, on the 10th, in 1847. During the period 126 days were fine, and on 70 rain fell.

BEFORE our next number is issued to our readers the Report of the Committee over which Mr. Godson presides will have been submitted to the Horticultural Society. On that Report, and on its reception or rejection by the Fellows, depends the existence of what may be, and we hope will be, a Society most useful and most influential to our national gardening. Knowing this, we look with no ordinary anxiety and interest to the proceedings that will occur in Regent Street on the 11th instant.

What the Report of the Committee may recommend we cannot foretell; but deeply shall we deplore, in common with every one who has the promotion of British horticulture at heart, if the Committee do not feel justified in recommending the possession of the garden at Chiswick to be retained. We cannot but hope that they will recommend it to be retained; for we are convinced, and we know many first authorities who have the same conviction, that the Chiswick Gardens might be so cultivated as to be self-supporting. We mean that the sale of the produce, totally independent of uncertain exhibitions, would pay for the expenses of supervision and cultivation. If so, why should a garden on which £29,000 have been expended, and which contains within its boundary the finest collection of hardy fruits in Europe, be abandoned, and lost to the community? It is such a collection for reference as could not be again assembled in our generation.

Another recommendation we hope to find in the Report is, that the Secretariat be placed in other hands. This is essential; for we warn the Committee, and we warn the Society, that unless confidence not only of better management, but of more courteous treatment, is restored to the gardening community, that community will not rally round them.

The Vice-Secretary, we are told, holds as a dogma that a great society cannot be well managed unless the chief power is given to one man. There is just enough of truth in this dogma to conceal that in it which is a most mischievous error. The executive—the supervision of the carrying out of all plans—may well be confided to one officer,—for such unity is the best mode of obtaining promptness and vigour of execution. But the plans previously should be well digested and canvassed in a Council or Committee of Management. Let many men consider plans—let one man carry them into effect. If an illustration is required, let that be derived from

the Royal Agricultural Society of England. They have a Council and Committees to advise and resolve upon the management of different departments. They have a Secretary to see that their resolutions are carried out, and that secretary, Mr. Hudson, is a model. Active, calm, persevering, courteous, firm—always and to all ready with an appropriate answer, and that answer never an unkind one.

Such a man must be had for the Horticultural Society. He is to be found without difficulty, and then, if the annual subscription is moderate, there will be a prompt and powerful increase of the society's ranks and finances.

For years past—we may say, without exaggeration, even ever since the birth of the society—one man's opinions have been too much allowed to prevail. It was so whilst Mr. Sabine was the society's official, and the cloak of evil influence fell from him upon Dr. Lindley. The results are told in one fact—overwhelming all defence—nearly £70,000 have been obtained from various sources, and disbursed in ten years,—yet the society is unrelieved from its large debt!

It is quite possible that a middle course may be suggested. It may be proposed that the Garden shall be placed under a management distinct from that in Regent Street, and that thus, while the Vice Secretary continues to reign in London, an oligarchy may rule over Chiswick Garden. Could such an arrangement be secured—could a necromantic circle be drawn around the garden, potent to exclude, totally and for ever, the spirit which has blighted and now wishes to abandon that garden, such an arrangement might so far be advisable; but we have an unshakeable conviction that that spirit would overstep any circle—any resolutions—any rules that might be intended and ordained for his exclusion. Our conviction is founded not so much upon our opinion of the present Vice-Secretary as upon our knowledge of what invariably has occurred when the interference of an influential officer has been sought to be excluded from any department of a Society with which he is connected, and to which department he is adverse. Hints, suggestions, and passive opposition have always effected his purpose.

We make our observations in entire ignorance of what the Committee purpose recommending to the Society for adoption; for although the Committee met as long since as on the 9th of February, and has, we believe, heard evidence, and met repeatedly since, yet its

consultations are as secret as those of the Congress simultaneously sitting at Paris. Not even a clerk was admitted; and even officials engaged in an adjoining room were removed to a more distant office. We merely give utterance, therefore, to our own well-considered opinions, but have the more confidence in their correctness because they are opinions entertained by some of the soundest heads among the gardening community. Those heads, also, all sanction the fervent hope thus expressed in a letter before us: "May the Society, above all things, have a leading official with whom it will be a pleasure to confer—one that will be ready to give information—ready to oblige—ready to aid the wearer of a blue apron."

SINCE the foregoing remarks have been in type, we hear, from a reliable source, that the Committee are unanimous on the following points. On other points, at present, there are some slight differences of opinion.

- I. The Gardens to be continued.
- II. To have two *fêtes* this year; one in June and the other in July.
- III. Old subscribers, and all new ones at four guineas annually, and two guineas entrance, in addition to the usual privileges, to have an ivory season ticket, transferable to any member of their own family; or, perhaps, transferable without limit; it is not quite settled which.
- IV. To create a new class of subscribers of two guineas annually, and one guinea entrance; those to have no privileges beyond tickets at a reduced price.
- V. Subscriptions to be paid at the time of election, instead of retrospectively as heretofore.

MEETING OF THE HORTICULTURAL SOCIETY.

26TH FEBRUARY.

THERE was a large meeting of the Fellows on this occasion; but a new regulation, for paying for admission, scared all the birds of strange plumage, who used to hover about the skirts of the Society at these meetings; and practical gardeners seem to take high dudgeon at the council for their attempt to get rid of the garden, or else for cutting off the prizes, in future, at these meetings in London, which made them also stand aloof, so that we were not loaded with Cabbages, fruit, or "common things;" but the nursery trade came out very strong and most handsomely. The innermost secrets of the propagating department were arrayed before us in more than one hundred forms.

A special object was fixed on for a lecture at this meeting, and that object was *Grafting*, which was handled with tact and judgment in all its bearings, that is, historically, philosophically, physiologically, and practically. Judging from the looks of the meeting, the subject was, or seemed to be, of sufficient interest to rivet attention and curiosity for the time being.

Before commencing the lecture, however, the lecturer drew our attention to several groups of choice plants in bloom, which were contributed from the following nurserymen:—The Messrs. Veitch, Rollison, Henderson of the Wellington Road Nursery, Osborn, Masters of Canterbury, Standish and Noble, Cutbush, and also from Mr. Forsyth, gardener to Baron Rothschild; F.

Crockford, Esq.; and E. Bosher, Esq., and others, with a fine group from the garden of the Society.

Here I must make particular mention of one observation which the lecturer made in reference to a host of old Australian, Cape, and other old-fashioned greenhouse plants, to which I heartily and most sincerely said, "So be it," but not so loud as to be heard. Referring to a beautifully-grown specimen of the *Hakea acicularis* in full bloom, he said, that about a fortnight before the meeting this plant was so loaded with its snow-white flowers as to rival any of the exhibition plants; and then remarked, very pointedly, that if the same amount of skill and judgment were brought to bear on many of that class of plants as were lavished on Chinese Azaleas, and on more ephemeral subjects, the result would be of far more real advantage to gardening than the most sanguine could conceive. Now, this admission, from that quarter, was worth a first-class gold medal to your humble servant. I never have ceased, and never shall cease, as long as I have life, from declaring my firm conviction, that the great metropolitan shows at the Chiswick Gardens, the Regent's Park, and at all such places, have just done as much harm to gardeners and gardening in general, as ever they promoted the interest of either. Of this I am quite certain. What has been exhibited in collections for the last dozen years, save a condensed mass of the very easiest plants in the country to grow? The moment a plant was found to be the least difficult to grow it was thrown aside, and a sounding name was given to the merest variety of the easiest plant to cultivate to make up the show of numbers. Thus, gardeners were actually receiving gold and silver medals to encourage them to circumscribe one collection of plants, year by year. How very different our position would be, and might have been, at the present day, had the leaders of the Horticulturals taken a different course; if they had offered and awarded their offerings for "that amount of skill and judgment," &c., &c., &c., which we cannot now recal, but which we must think about ere long if we want a leg to stand on.

The next in the group, from the garden of the Society, was *Thyracanthus Schomburgkii*, alias *rutilans*, and *T. lilacinus*; the first well known as the most elegant and most useful of stove plants, keeping in flower for three or four months in the dead of winter, and as easy to propagate as a Verbena, and no more difficult to grow than a Fuchsia. *Lilacinus* is just as useful, and as easy to grow, with long, upright spikes of pale lilac blossoms.

Franciscea macrophylla, as healthy as a mountain daisy, from being grown in a cool house, only a shade warmer than a greenhouse: heat is inimical to the health of all the family. *Rhododendron lilacinum*, a fine lilacy-blush kind from Sikkim, and most valuable for coming in so early. *Epacris densiflora*, a fine blush kind. *Muraltia stipularis*, nearly as old as the Holly tree, and as useful, when you want something to make you smart in the dull of winter. *Azalea obtusa*, with dark red flowers. The large *Forsythia viridissima*, which they keep from the frost to save the flowers, though the plant is hardy; and two varieties of *Galanthus plicatus*, or Russian Snowdrops, very different from ours. This species was received, some years since, from Dr. Fischer, of St. Petersburg, and a grayish-leaved variety of it from Col. Munro, who sent it last year from the Crimea, where it grows wild among their tents.

Mr. Henderson, of the Wellington Road Nursery, sent a most lovely new bulb of the Pancratium section of Amaryllids, called *Eucharis grandiflora*, with nodding flowers on a tall scape, as white as snow, and of ivory polish and substance. The scape is five-flowered, coming in succession. How I mourn that a share of that "amount of skill and judgment" has never been invited to develop the surpassing beauty of this race of plants.

Mr. Veitch sent six specimen plants of as many kinds of *Epacris*, which were beautifully and closely-grown, and well bloomed. The highest-coloured ones ran thus, *Ardentissima*, *Tauntoniensis*, fine, *Sanguinea*, *Coccinea floribunda*, *Magnifica*, rose, and *Gem*, a fine blush, also *Rhododendron purpureum*, to show how well it is adapted for early forcing. It is of the Pontic breed, and seems like *Alba multiflora* among foreign Geraniums, for you could not perceive that the plant had been in heat; a bright-flowered *Correa*, in the way of *speciosa*; a *Streptocarpus polyanthus*, with several flowers on a stalk; and a very pretty new plant from Assam, belonging to Cinchonads, but with the appearance of some *Philadelphus*, with large white flowers.

Mr. Cutbush sent a beautiful collection of forced *Hyacinths*, in yellow loam, the highest coloured of which was called *Solfaterre*, a beautiful crimson-scarlet flower; *Circe*, the next shade of scarlet; *Beecher Stow*, a fine pink; *Maria Theresa*, a lighter pink; *La Joyeuse*, a deep blush; *Norma*, a light blush; and *Duke of Wellington*, a double white; with *Keizer Alexander*, a deep violet-blue, with a lighter eye; and *Sir John Franklin*, a single light blue; all of the very best kinds.

Mr. Forsyth, gardener to Baron Rothschild, sent two fine specimens of *Phaius grandiflora*, one of which bore twenty-one flower-spikes; a *Boronia pinnata* and *Medinella magnifica*, in first-rate style.

Six Chinese Primroses from F. Crookford, Esq., St. James's Street, not worth a groat, and fifteen *Hyacinths* from E. Rosher, Esq., not much better. The Messrs. Rollinson sent six large Orchids in good bloom; *Dendrobium speciosum*, three kinds of *Vanda*, a huge *Angraecum eburneum*, a *Neottia maculata*, the double white *Prunus*, and *Acacia eriocarpa*, one of the globular flowering section, with a good, close habit and small leaves.

There was a real acquisition, from Messrs. Standish and Noble—a wild Chinese *Viburnum*, allied to, if not the real parent of, *Viburnum macrocephalus*. No one can grow *Macrocephalus* on its own roots, else we should see it in every collection; but it will graft freely on this wild one, and grow and flower on it as well as Fortune says it does in China.

Among the score of plants sent up from the nurseries to show the effects of the different modes of *Grafting*, the most useful to know is, that all the rare *Pinuses*, or, rather, the whole race of *Conifers*, should be grafted down as low as the collar of the plant which is used for a stock; then, by planting such grafted plants sufficiently deep to bury the grafted part, roots will come from the scion, or graft, in time, so that the plant, ultimately, grows on its own roots. This is really a useful lesson; but the lecture on grafting embraced the whole subject of stocks to graft on, from the most perfect stock, with which the graft unites so completely, that a section of the parts cannot reveal the points of union, to the very worst of stocks, on which the graft never takes properly, and from which it ultimately severs, just as the footstalk of a leaf parts with the branch, naturally, in the autumn.

Grafting was not a discovery, but a natural condition, under particular circumstances; as when two branches of Ivy cross each other, and cling so fast to every side, that the one cannot give way for the other to grow, so the two unite and grow together as if they were grafted at the crossing. Roots graft in a like manner when they come in contact; but some of the absurdities anent grafting, which obtained currency in Carthage, in Greece, and in Rome, have been chaunted by Virgil in his Georgics, and we had a stanza from Dryden's translation to prove the facts. But grafting evergreen trees on deciduous ones, as the *Deodar* on the *Larch*, is not a whit more philosophical than the dreams of the Mantuan bard; yet we are compelled so to graft, in the face of absurdity, and make virtue of necessity. The Plum is not the natural stock for the Peach; but the Almond is. The roots of the

Almond and Peach will not live, however, in our cold climate; and we must grow them both on the Plum, to the prejudice of their strength and longevity.

When a graft and stock unite perfectly, by reason of the similarity of their constitution, or organization, does the graft send down wood to cover the stock? or does the stock send up wood to thicken the stem, or what? There have been advocates of both theories, and both are wrong: wood is not made that way at all. "Wood makes wood," and every wood after its kind, by its own cells. Thus, the graft wood makes graft wood only, and the stock wood does the same; but the one may grow three times, or three times three, faster than the other, according to constitutional difference; and this difference must, sooner or later, either kill the weakest, or rupture the alliance at the point of union.

Drawings, in illustration of the subject, and actual specimens to verify the facts, were in abundance before our eyes; but who can enumerate them, or mind them, if they were named or numbered. Suffice it to say, that the Messrs. Standish and Noble produced evidence, which could not well be refuted, for the settlement of a vexed question, the best contested of our day,—that of grafting *Rhododendrons*. Does grafting them improve their hardiness; bring seedlings to flower sooner or more freely; increase or diminish the size or growth of the plants; or make them to live longer? It is now perfectly well ascertained that grafting *Rhododendrons* will secure all these changes; and it is equally well known, that grafting them will also do the very contrary of all these put together; but a gardener with healthy brains could tell as much the first day the question was mooted.

How is it, then, that grafting *Rhododendrons* will make one branch from a plant, or, rather, one graft from a plant, become more healthy, and flower sooner and better, than if it was left on the parent plant, if it is true that a second graft from the very same plant may never flower at all, or but seldom and indifferently, while its health and constitution are impaired by the operation? Can it be possible, that the self-same process, by the same hands, on the same soil and aspect, elevation, and so forth, is productive of good and evil? Yea, these things are done every year of our lives, and will be done to the end of the chapter, notwithstanding all that has been done, said, or sung about grafting, from the days of Virgil to the present time. The whole question depends on skill and conscience. The first is the grand secret; skill determines the right kind of plant, and the right conditions under which that plant may be made a stock of to improve a given variety of any family; or, if improvement is not the consideration, but to supply a demand in the market, skill is equally required to point out a stock which will not deteriorate the qualities of the graft, nor hinder the perfect development of the grafted plant. Skill determines all this for the races of plants that are usually grafted, and for *Rhododendrons* among the rest; but does conscience follow a man all over a nursery every day he grafts, or orders grafting to be done? Where the conscience prevails, in conjunction with practical skill, every stock will be not only suitable, but the most so for every particular graft; but empiricism, with all the conscience in the world, could not be trusted with the proper selection of stocks. How, then, is an ignorant man likely, with no conscience about the matter, to go about the business? Why, he take the most accessible stocks on hand, grafts them, and, if he but gets his bills paid, he cares little, and fears less, about the fate of his grafted plants; which brings us round just to the very corner we always start from, when we advise our readers to have no dealings with the low, petty-fogging, low-priced quacks, which infest the world, and gull that portion of it whose creed is governed by cheapness and bombastic puffing.

In conclusion, the lecturer, after proving that all Rhododendrons, and all such, may be grafted with advantage, advised his audience to be careful in selecting their grafted plants; and, he ought to have added, be also most scrupulous about those with whom you would deal for grafted plants.

D. BEATON.

A BUNDLE OF INQUIRIES ABOUT GREENHOUSES, VINERIES, AND OTHER GLAZED STRUCTURES.

I CAN well believe that it is next to an impossibility for an editor of a popular periodical so to conduct it as to give satisfaction to all his supporters. There is a continual influx of fresh readers, and to them anything but the simplest A-B-C details are bewildering. On the other hand, if an old tale is repeated, the adherents who have stuck by you through a succession of volumes shrug their shoulders, and commence muttering, "Well, we surely have had enough about *that!*" A writer sketches out a few things to be thought about at a particular time, and a gentleman complains that the whole treatment of a particular plant, and the various modes of managing it, did not constitute a part of that article! The writers, just like the editors, are anxious to give the greatest possible satisfaction and pleasure to the greatest possible number of readers, and to do so they ought never to be above simplicities. Our superiors in position and intelligence should remember, that there are many as undrilled and inexperienced as they themselves were years ago. When beginners find that the food is too strong for their digestion, let them spend a postage-stamp in detailing all their symptoms and wishes to our Soyers of editors, and then complain if suitable provision is not provided. Even then, it will be wise policy not to give up, though each should not get all he wants at once. He is only one of many, and there can be no favouritism. He would often wish for more ample details; but space is limited, and there are increased demands upon it. Often I wish to scrawl on and on, but the ferula of our head master comes vividly before me. Then what am I to do with the contents of the actually dozen of letters now before me? And how can space be found for a chat over them? Each letter is suggestive of a separate treatise; but then the most of them would make their appearance when they could be of no use to those chiefly concerned. I must, therefore, treat them briefly, and somewhat at random.

1. GREENHOUSE STAGES, HEATING TANK BY GAS, &c.—A correspondent (*E. Anderson*) proposes putting up a greenhouse in the bleaching green behind his house, thirteen feet by ten, glass one end, the other end a wall, but that not at a right angle; wishes to have the roof rectangular, so that it might fit another place if moved. This is easily managed. Place the two end rafters of your house (thirteen feet apart, I presume) at right angles with each other. Between the end rafters and the wall there will be a small triangle to be filled with glass. As you have a hipped roof at the back, back air could be given there, and the roof might be fixed, using strong sash-bars, instead of rafters, as done by Messrs. Rivers, Lane, &c.

Stages.—The house is six feet in height in front, and the highest point in the roof seems about ten feet. At two-feet-and-a-half from the ground it is proposed to have a platform at the front two-feet-and-a-half wide, path two-feet-and-a-half wide, and the back stage to consist of another two-feet-and-a-half shelf on the same level as the front one, and two other shelves one-foot-and-a-quarter wide each, and raised above each other about four inches; and an opinion is asked. I would say the front platform is all right; the arranging of the other is right or wrong, according to the size of the plants to be

grown. As, by the dotted lines, the back shelf of the stage is intended to be only seven or eight inches above the front one, I can see no reason why the two shelves, of equal width, should not answer as well as the three; or even a level platform right across, through the former, would be better. Were it intended to grow a good many plants in smallish pots, I would raise the back shelf against the wall from two to three feet above the front one, and divide the space into five shelves, or six, instead of three.

Heating.—"It is proposed to do this by means of a tank placed underneath the stage, in connection with a small boiler heated by gas." Size of tank wanted. That will depend upon the material. If of iron, least; if of slate, much the same; if of brick, covered with slate, more; if of wood, covered with slate, more still. If of iron, one nine inches wide would be sufficient; if of wood, covered with slate, eighteen or twenty inches would be necessary. In either case, it would be as well to have a division down the centre, and about three or four inches would be deep enough. I am supposing that this goes the whole length of the house. I should prefer that it went round the glass end, and beneath the front shelf. If more than greenhouse heat is wanted the tank must be wider.

2. GROWING FRUITING-PLANTS IN POTS IN THE BORDER OF A GREENHOUSE.—"An old Subscriber," in Scotland, wishes to try *Oranges, Pomegranates, Olives, Eugenia Ugni*, and others we may name, in imitation of Mr. Rivers, in his Orchard-houses, and proposes making holes in the pots, to let the roots down. Now, the first thing I should want to know here, is the position of the said border, as respects light; if that is unobstructed by the shade of plants, I would say, go on and prosper. If it is desirable to change the pots, ripen their wood fully out-of-doors, and give them a rest there when necessary. I would do little in the way of encouraging the roots in the border. I have not tried *Olives*, or *Pomegranates*, but *Oranges, Peaches, Figs, Vines*, and, I believe, *Eugenia Ugni*, &c., would answer well. With greenhouse-temperature, keeping the frost out merely, you must not expect to have fruit early.

3. GLASS FOR ROOF OF CONSERVATORY.—MODE OF HEATING FROM KITCHEN BOILER.—"Z. Z. Z." says:—"There is a north and west wall now in existence, the roof to be as flat as possible, and face the east, the end will face the south. The rafters, or strong sash-bars, are one foot apart," which will answer well, and might be wider; and, as it is desirable to dispense with all means of shading the roof, there is not a question but that Hartley's rough glass will answer admirably. In a cool veranda-house, the back wall being of a light colour, I used to be much troubled with the scalding and burning of the foliage near it. A roof of small, lapped squares was exchanged for large, thick squares of Hartley's, and I have never seen a scald since, and there has been no necessity for shading. It is proposed to heat this from the kitchen boiler twenty-three feet distance, "the top of the boiler being just one foot above the floor of the conservatory, and the bottom about the level of the same." These will be the replies. 1st. The boiler will do, but it is a near go. Your lowest pipe will be all the better to be twelve to eighteen inches above the floor of the conservatory, the upper flow-pipe as many inches as you can find convenient above that. The flow-pipe should rise from the boiler to the extreme end, and there terminate in an open socket, or cistern, and the return should sink to the bottom of the boiler in a similar manner. 2nd. One-and-a-half inch pipe will not heat the house sufficiently; you would require a three-inch, or even four, and then a flow and return would do. For the sake of economy, however, one-and-a-half-inch pipe might be used for the twenty-three feet before it gets to the conservatory. If

these are laid in a tube of wood, or an open drain, one end terminating in the house, and an opening at the end near the boiler, little heat would be lost. There is no difficulty in taking it the distance. Two sweet-scented plants, to cover the two walls, might be *Lonicera japonica*, and *Mandevilla suaveolens*, giving the last the south.

4. GREENHOUSE AND MUSHROOMS—HEATING BY GAS, &c.—I presume, in answer to “L. R. L. ———, Louth,” that the raised border in which the Vines are planted at the back of the greenhouse is *inside* the house, and then the whole plan of bringing their roots all over the floor of the house, and covering that with lattice-work, is quite right. The pipes are placed near the middle of the house, and between them and the front is another border, on which it is desirable to place a Mushroom-bed, and information is wanted as to suitability, &c. I reply, that in such a place, and with no extra heat given to the Vines in spring, Mushrooms may be had from October to May. In summer it will be too hot, and if you force the Vines in spring, it will also be too hot, Mushrooms refusing to do well long when the temperature exceeds for any length of time from 55° to 60°. In a greenhouse, in winter, with an average temperature 40° to 45° at night, 10° more are easily secured from the heat of the bed, and a covering of hay. Excess of moisture, from watering plants, syringing the house, &c., must be avoided, by covering the beds with something that will throw the water off. I have gathered many a bushel from such a place, and with but little trouble, and a comparatively small quantity of manure. I recollect, many years ago, seeing some grand beds under the stages of greenhouses at Mrs. Moore's, in the King's Road, Chelsea. Our correspondent has heated his greenhouse with gas, placed under a cast-metal boiler, using fifty feet per hour, and costing 5s. 10d. per 1000 feet, while he heats with coke at 2d. the twenty-four hours, thinks that a thin copper boiler would be best for gas, in which I agree; and wishes for more definite information on the subject, in which I also reciprocate, hoping that as even an intended good turn deserves another, the correspondent I replied to the other week will be kind enough to detail the whole process by which he manages so cheaply, as many would have a small house were it not for the bother of the furnace. I have several times mentioned seeing a small house, heated by water in tin tubes, connected with a little tin-kettle, with a concave bottom, and having a *naphtha* lamp, or a gas jet, beneath it. *Hotbeds* for temporary purposes, and where there is a thick covering of soil, or decomposed sweet material, there is no necessity for working the rank dung so much; but recollect, that if you place plants within the reach of it when in this hot, rank, unsweet state, ruin will be the result.

R. FISH.

(To be continued.)

EVIL CONSEQUENCES OF A MILD WINTER.

THERE is, perhaps, more injury done in a mild winter than in a severe one amongst the tender or half-hardy plants which the gardener has to deal with; for it not unfrequently happens that a period of dull, mild weather throws the inexperienced off their guard, and towards the middle, or it may be earlier, a sharp frost sets in suddenly, carrying death and destruction to many things which had looked not only healthy but luxuriant. A mild winter is seldom followed by a genial spring, the consequence is, that plants which have survived until the middle of February, perhaps, in the open air, are often killed then. This I have seen over and over again, and have seen *Scarlet Geraniums*, in a tolerably green

and healthy condition up to that period, suddenly die off when a sharp frost sets in; and *Peas*, sown in the early or middle part of November, are killed to the ground at the same time, if they have advanced too far. This teaches us the propriety of not depending on one crop alone of this useful vegetable; for though a young brood of *Peas* will endure any amount of frost when only one or two inches high, they cannot bear it when more advanced—say eight or ten inches; in fact, six inches is too much in ordinary times.

Now, apart from *Peas* suffering from cold at this season, other things suffer likewise, in proportion to their delicacy, or the advance they have made in their growth; for, be it observed, that all plants of the annual or biennial sections endure more cold in a young than in a half-grown state. Even plants which are tolerably hardy are less hurt by severe weather, when young, than when subjected to it in a more advanced stage. It is on this account that Brocoli, Cauliflower, and other plants, suffer less when young than when half grown. In fact, Cauliflower, and the more delicate of the Brocoli tribe, are too tender to endure much frost in any stage of their growth; but they are always more hurt when large than when small.

We have here a lesson not to attempt wintering large plants, for, besides the danger of losing them by the causes mentioned, there is another equally serious one, which is, the liability that plants of an advanced size have to complete their growth in the most suitable, perfect manner, which they will not always do when in a too advanced state when spring sets in; there being an almost certainty of plants of that size forming a sort of premature growth. Cabbage plants running to seed, instead of forming hearts, and Cauliflowers doing the same thing, only the change is called “buttoning,” which is neither more nor less than the plant finishing its growth before its proper time. Now, in order to prevent this state of things, it is better not to depend on one crop alone.

The winter, up to the period I write, the 22nd of February, has not been in any way remarkable, except for the very little snow we have had; but, as it is possible to have it yet, it is too soon to say much; but we had a sharp frost from the 20th to the 23rd of December, which was the most singular I ever knew. The ground and everything else to which the frost had access being exceedingly dry, so much so, that clouds of dust were flying in the roads the same as in June, with a thermometer which on one or two days did not range higher than 25°, the coldest day of 1855 being the 21st of December; but there were some nights last February in which the frost was more intense. However, since then we have had it very mild until the last few days, which have been very wintry in their character. Now, as the frost alluded to, and one before it, tended to check the growth of everything, and, consequently, there is nothing tender likely to be living now that was at all exposed to cold at that time—but the mildness of the weather has, in some measure, rendered the plants more delicate—it would be well to take some means to prevent their being destroyed. If the cultivator has been thoughtless enough to allow his *Cauliflower plants* to remain covered up at all times during the last few weeks, they will be more delicate than many greenhouse plants, and in a bad condition to endure frost. However, we may expect to have cold weather of some sort, and, as has been before observed, plants will not endure so much frost in April as in December; consequently, a greater amount of protection must be given as the season advances, especially to such tender things as have advanced some way in their growth.

J. ROBSON.

BLOCK FLOWER-BEDS.

A CORRESPONDENT in THE COTTAGE GARDENER of February the 12th, states, that during his visit to Ribston, of Appleton, he was much impressed with the beauty of a flower-bed, the description of which he gives. I think you will agree with me, when I say that horticulturists and florists are an emulatory class of animals, when they see anything worth emulating. It is not my business to discuss here whether this attribute is a good or bad one; but such is the case; and I, being one of that number, of course partake of their nature. Now, I came across a garden, some five or six years since, and saw a circular bed similar to the one your correspondent describes, being formed of poles about two or three inches in diameter, and these placed in a vertical position one row or tier above the other, the centre being about three feet high, and it certainly made a beautiful appearance, and one, I thought, worthy my imitation. I consequently set to work, and although I was not the originator of this design, which may have been as old as my grandfather, for ought I know, yet, I fancy, in my design I made some little improvement: but even in this, others may have anticipated me. However this may be, I made one in the following manner.

I first procured some Spruce Firs (Larch will do as well) from six to four inches in diameter at their base. I had these sawed down their middles, and cut into four different lengths, as I wanted my bed with four rows, ranging one above the other, so I had the largest ends of the young trees cut about two feet six inches in length, the next size two feet four inches in length, and so on with the others, reducing them ten inches respectively. In my case, I did not intend having them placed in a vertical position, as I thought, by placing them rather slanting from the centre would give them somewhat a more elegant appearance; and yet I wanted the upper ends of the blocks cut in such a manner, that when placed they would be parallel with the horizon, if I may use the expression. I, therefore, in cutting these blocks, took care not to cut them square, but rather slanting inwards from the back, so that when placed they would answer the above ends. Having these ready, I commenced the bed thus. I marked my bed about sixteen feet in diameter. I then had a trench cut about fifteen inches deep for the first row, cutting it a little slanting from the centre, similar to one for planting Box. I then placed the largest blocks close to each other in the trench, in order to place them upright in one direction, whilst the top of each block slanted from the centre; it was necessary to make that end to be placed in the trench somewhat smaller than the top. When thus far down they were securely fastened by the soil being firmly pressed around them; I then filled up with earth (any ordinary soil will do for the centre of these beds). When filled, and finally pressed, I proceeded to place the second row upon the surface in the same manner—one foot six inches within the first circle, putting the second size blocks in this one, and so on, until all were complete. In ascending, it will not be necessary to place them quite so deep in the soil, as the pressure upon them will not be so great. Having made mine of heavy, retentive soil, I thought it necessary to give the plants a fair start, to take out the earth one foot deep, and about fifteen inches wide around each circle, and to fill it with good soil. I have had this filled, during three years, with scarlet *Geraniums*, putting one fine plant in the centre, taking care to preserve uniformity to the bottom; then around the edge of the first circle I planted a row of variegated *Alyssum*,* which completed the bed. The *Alyssum* soon grows, and hangs gracefully over the bottom series of blocks. During the summer months one can hardly picture a more brilliant display, forming one large dome of scarlet edged with white, and can be seen at a great distance. It fails not to elicit high encomiums—often from those who generally are the least impressed with floral beauty. No doubt, some of your readers have come across something of this description, if not its prototype; but, on the other hand, probably this may meet with the eye of some admirers of Flora, to which it may be useful, by suggesting some hints for the exercise of their ingenuity. If we are to have peace, I think of filling this upon the

* This plant is commonly called the variegated *Alyssum*; but is it not rather a variety of the *Koniga maritima*?

ribbon principle; if not exactly with "red, white, and blue," at least to have these for the principal colours. What does Mr. Beaton say to it? I have others of different sizes and shapes, all of which, when filled, whether upon the ribbon, mixed, or whole colour principle, are very interesting during summer. I have had one filled with mixed *Verbena*s this season, which was very handsome. They are also very appropriate for the centre of geometric figures.—S. AMEX, *Saling Grove*.

FRUIT-RIPENING IN AN ORCHARD HOUSE.

I AM a young gardener, having lately taken a situation as head-gardener, and having, at various times, derived a great amount of instruction from your valuable paper, I think that some of the various facts which have come under my notice, may, possibly, in return, be useful to some of your readers; and as the question of Orchard-houses appears to excite considerable interest at present, it, perhaps, may not be out of place to state what I have seen respecting them.

Last year, I was living as foreman in the garden of a nobleman, and where I had the charge of an Orchard-house, about forty feet in length, which was a lean-to house, built of feather-edged boards, with a fixed roof, air being admitted by means of shutters along the front and ends, and the same at the top. There was a walk along the centre; and in the front border, which was four feet wide, were three Peach-trees, planted out, and trained close under the glass. They bore an excellent crop of highly-coloured and finely-flavoured fruit; and although at the time they were in flower, and after the fruit was well set, we had as much as 5° of frost, they were altogether uninjured, and ripened their fruit sixteen days earlier than did the trees on the wall, although these open-wall trees were covered with canvass.

The back border of the house was occupied by Peach-trees in pots; but although they ripened earlier than those out-of-doors, the fruit was smaller, and not so finely-coloured.—

GAS CONSUMED IN HEATING A GREENHOUSE.

In the number of THE COTTAGE GARDENER for February 5th, page 337, you ask for a practical answer as to the question of cost of gas for the purpose of heating greenhouses.

I have a greenhouse twenty-three feet long, by seven feet six inches wide, height in front, six feet six inches, and at the back, eight feet. It is heated by water, the water being heated by gas, which I find answers very well. The greenhouse was fitted up, last autumn, with two three-inch pipes made of very stout zinc, connected with the boiler by brass unions, for convenience of removal, if necessary. The boiler is constructed of copper, and is so arranged, that a great amount of heat may be obtained from a small quantity of gas. On the coldest night this winter the thermometer in the greenhouse, at the farthest point from the pipes, did not fall below 38°. The quantity of gas consumed is about one hundred feet in six hours; but I do not usually find it necessary to burn so much, my object being only to keep the frost out, and, occasionally, to dry the house in damp weather. The pipes and boiler, with feed-cistern, contain about eighteen gallons of water. One hundred feet of gas would be sufficient, with the boiler I have in use, to heat a larger pipe than I have attached to it, or a greater length of the same size, which, of course, would raise the temperature of the house somewhat higher. I had the boiler in question made ten years ago, for the purpose of heating a garden frame, nine feet by six feet, for which it was larger than was required. I have been informed, that the gas produced by the Cannel coal does not give sufficient heat for use in stoves, and, consequently, would not do for this purpose. It is quite necessary to have the boiler so arranged, that there may be a tube to carry off the smoke and vapour arising from the gas, which, if allowed to escape in the house, would be very injurious to the plants. Thin iron would be a bad material for the boiler, as the gas would

corrode and eat through it in a very short time. Copper, though more expensive at first, is cheapest in the end.—E. J. S.

EARTHENWARE PIPES AS A SUBSTITUTE FOR A BRICK FLUE.

In your number for the 12th inst., you mention having seen a house heated by a flue formed of round earthen pipes, and, with the exception of one or two next the furnace, they stood the heat well.

Last autumn, I built a pit, twelve feet by eight, and used six-inch earthenware glazed pipes for the flue, making the first yard from the furnace of brick. The pipes stand the work well, do not get too hot, and, in fact, are, in my opinion, superior to the brick flue. I have also used the same pipes for a greenhouse with equal success. I had a small house heated with the usual brick flue, and to this, last year, I added a larger house, and heated it by continuing the flue with earthenware pipes. The old house I use for forcing; the new, for *Pelargoniums*, &c.; shutting off the heat, or letting it on, when needful, by means of dampers. Both houses answer perfectly.—Tor.

QUERIES AND ANSWERS.

GARDENING.

AZALEA FORCING.—SENDING BOUQUETS BY POST.

"I was recommended, by a gardener, to place my *Azalea alba*, showing flower, into the stove, to get it early; but instead of its advancing to bloom, the buds have gone brown and decayed, and the plant started into growth. How is this? Will they force?"

"Can you tell me the best way of sending a nosegay in a box by post? As at this season of the year a present of the kind is acceptable. Should the stalks be tied round with damp moss, or what?—I. G."

[The *Azalea* forces well; but when put into a stove it should be in the coldest place at first, and more air given there than anywhere else; in fact, the heat must be increased gradually, or the buds will be apt to go as you represent.

We have packed flowers in boxes very successfully in the following mode:—A little damp, but not wet, moss at the bottom, the end of the stalk resting on that, and, perhaps, a little more, and then all spaces filled up firmly with dry cotton wadding. The firmer the flowers are fixed the better. Some fine threads should go across through the sides of the box just underneath the lid level, so as to keep a flower from moving if the box should be carelessly turned topsyturvy.]

CAMELLIA BUDS FALLING.—RE-POTTING GERANIUMS.

"I have some *Camellia* plants, vigorous and healthy in appearance, and which were full, but not over-crowded, with healthy buds. All the buds have dropped off but one. The plants have not been re-potted since their last flowering, and I conclude, from your late article on the subject, that this neglect explains the failure. Should they be re-potted now? or, if not now, at what season?"

"Should *Geranium* plants, cut back in the autumn, be re-potted now? And what should be done with some strong *Pelargoniums* which have not been cut back at all last autumn, and, though green and healthy, are tall and straggling?—M. A. N."

[It is quite likely that something connected with drainage and watering, as well as frost, perhaps, had to do with the falling of the buds, instead of want of potting. You may either re-pot when the young shoots are about one inch, or less, in length, or after the flower-buds are just set and distinguishable. We prefer the former, and to keep the plants

growing in a moist, shady atmosphere until the flower-buds appear at the points of the shoots, when they should be inured to more exposure.

Geraniums cut back in the autumn may properly be re-potted now, if you do not want them to bloom early. Those wanted to bloom in the end of May should not be re-potted after Christmas. Those potted now will come in, other things being equal, at the end of June and beginning of July. If the shoots are strong and healthy, fresh potting often causes the flowers to come weak, if the period of flowering is not delayed. *Pelargoniums* not cut back last autumn, now healthy, but tall and straggling, may either be kept as they are, for getting early flowers from them, and then be cut down, or may now be cut down for cuttings, and when the shoots break afresh, be re-potted and grown on, and they will bloom well in the autumn.]

PRUNING IVY.

"Part of the front of my house is covered with Irish Ivy, which has not been cut for a number of years, and it now looks as if it was going to fall from the wall. Would you be kind enough to inform me, if I were to have it cut close in in the course of a month, whether it would be green by the middle of June next?—T. M. P. H."

[About a month hence you may cut the Irish and all other hardy Ivies with confidence, and it will be green and glossy by next Midsummer-day, provided always, and be it remembered, that the cutting is done in earnest. Every leaf of it, and every branch or sprig which is two inches from the face of the wall, should be cut first, beginning at the top in a sheep-shearing fashion. After that, all or any loose branches must be cut down to where they are loosened from the wall. After that, about one-third of all the young branches should be cut clean out to make room for a succession of better ones. Irish Ivy has been so shamefully illused in this country for the last two hundred years, that it is difficult to make people believe the right way of treating it. A stranger, looking at our Ivy and out-door Grapes, would hardly believe that there was one real good gardener among us.]

EVERGREENS FROM CUTTINGS.—WINTERING BEDDING-OUT PLANTS.

"I am desirous of propagating a few evergreens, such as variegated *Hollies*, *Barberries*, &c., by cuttings. Is this the proper season for doing so? In what aspect and soil should they be planted? I have been so unfortunate as to lose a considerable number of my bedding-plants this season. I had them stored in a four-light tan pit, twelve feet by five feet, in which I grew Melons last summer. The plants were about eighteen inches from the glass, and on fine days I tilted the lights about four inches. Perhaps I did not give them air enough; or the rich soil the Melons grew in may not have been a good one to plunge them in.

"Are bedding-plants the better for a slight bottom-heat in winter?—AN AMATEUR."

[*Hollies* and *Barberries* do not come from cuttings, as you propose; neither will *Portugal Laurels*, nor *Junipers*, and many more besides. But, what is worse than all, there are no evergreens worth a groat that will come from cuttings in the spring. July and September are the months for such cuttings, according to the kinds. You can graft variegated *Hollies* now if you have young, green ones for stocks; but it is a most precarious job in the hands of an amateur. Indeed, very few are successful with any kind of *Hollies*, except nurserymen.

Bedding-plants should have no bottom-heat at any time after they are rooted and nursed. The frost, or too much damp, caused your loss. You gave sufficient air, but you did not look daily for symptoms of damping or fogging. Good gardeners never allow a speck or spot to come near their plants. Three or four dirty pots would about kill half the plants in such a sized pit as yours.]

THE SUBURBAN VILLA AND COUNTRY HOUSE.

THE HOUSE—ITS POSITION AND ARRANGEMENT WITH REFERENCE TO THE GROUNDS SURROUNDING IT.

A RESIDENCE and the grounds belonging to it should form a well-connected whole. To effect such an arrangement, the landscape-gardener and the architect must work conjointly. The ideas of each must be worked out with especial reference to those of the other if convenience and beauty are to be united in the practical realisation of their labours. The truth of this is patent enough to every one who has had any experience in laying-out grounds where the house has been erected without any reference to their subsequent existence.

I mention *convenience* in connection with elegant and appropriate arrangement, because, really, the practical recognition of its value should form a fundamental principle in landscape-gardening; nevertheless, it is often wholly disregarded. Good taste will not, however, allow it to be sacrificed to mere appearance. It is in giving due attention to the claims of each, in ornamenting utility, rather than in giving ornament the pre-eminence, that constitutes much of what may justly be termed good taste in gardening, as well as in every other art in which utility and ornament can be combined. It is to be wished that this simple principle were more generally recognised. The full appreciation of it would be fatal to every attempt at tawdriness in the use of ornament, wherever it may be necessary or advisable to employ it.

On the principle that example is better than precept, and that we often glean more valuable information from witnessing the results of a failure in the labours of others, than in realising a questionable success ourselves, I shall describe the leading features of one or two places I have recently visited, which bear directly upon this part of our subject. The examples given are by no means exceptional. I select them as being fresh in my recollection, and because they abundantly illustrate the inconvenience arising from the absence of a proper connection between the several apartments of a residence, on the one hand, and between the residence and its grounds, on the other.

The first example is in a large mansion some forty miles from London, the residence of one of our merchant princes, and purporting to contain accommodation for a large establishment. If accommodation consisted only in the number and size of rooms and offices, there would, indeed, be nothing to desire; unfortunately, however, these qualities do not com-

pensate the want of convenience in their position and arrangement, and in those desiderata the residence in question is sadly deficient. The body of the mansion is square and massive, and on either side is added a wing, each exactly resembling the other. The main building contains, of course, the principal rooms, the offices and servants' apartments being mostly confined to the wings. The exterior aspect of the house is agreeable. The wings effectually break the otherwise blank and monotonous sides of the main building, and the whole, when viewed from particular positions, has a classic appearance, and the Grecian style of architecture harmonises admirably with the smooth lawn and otherwise graceful scenery of the park. But let us look at the interior, and the great inconvenience arising from distributing the offices on each side of the principal rooms becomes at once evident. The laundry and its etceteras occupy the chief portion of one wing; the kitchen and various offices the other. Now, between the several apartments themselves, as well as with the other parts of the house, a constant communication has, of course, to be kept up, and the great highway is between the entrance-hall and the principal flight of stairs. Can any state of things pertaining to the internal arrangement of a residence be more inconvenient than this to every body concerned? Certainly, the principal suites of rooms are more or less isolated on the second floor, but such an arrangement ought not to be necessary in a country house, and it is always more or less inconvenient. In this particular instance it is especially so, and detracts very much from both the beauty and convenience which the situation is capable of affording, without giving in any way a compensating advantage.

Nor is it within doors alone that the inconvenience of arrangement is felt. A badly-arranged house generally offers great, and often insurmountable, difficulties to a proper disposition of the grounds, and the one in question is no exception to the rule. There are no means of connecting, in an appropriate and agreeable manner, the private, or what should be private, grounds with these corresponding apartments. The windows of the offices command all the most eligible positions. Half the pleasure really pertaining to a garden are consequently lost, and a perpetual source of regret is the result. Not even a conservatory, which is much desired, can be added in any position contiguous to the living rooms. A position, by-the-by, in which it should, if possible, be always placed, affording as it does so large an amount of pleasure, as well as forming a most elegant and appropriate addendum to the drawing-room.

The diagram, Fig. 1, will give an idea of the general arrangement of this house, perhaps as inconvenient a one as can be imagined, whether considered only with reference to itself, or in connection with its surrounding gardens.

Fig. 1.

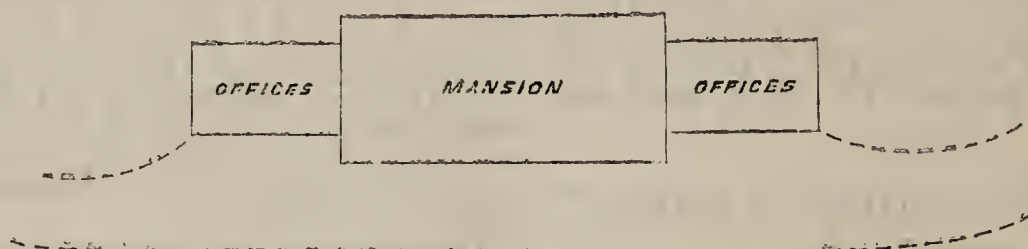


Fig. 2.



That the reader may benefit as much as possible, by being shown what to avoid, Fig. 2, illustrating the arrangement of the best modern houses, is added for comparison.

Another example of the want of a proper connection between a residence and its gardens occurs to me. I allude to it, because the inconvenience complained of might readily have been avoided when the house was designed; and the example may, perhaps, furnish a timely warning to some reader of *THE COTTAGE GARDENER* contemplating an essay in brick and mortar. The residence in question is placed on the edge of a steep glen, facing which is the principal front; the aspect south. A terrace very properly extends the whole length of this front, connecting the ornamental grounds, which are right and left of the residence; the main portion being on the left or east side. In fact, that is the only position in which, from the nature of the surface, the main portion could be placed. This was, of course, known when the house was built; but how was it taken advantage of? Why! by placing the entrance-door in that direction, and, of course, wholly destroying the private communication between the house and gardens. Certainly, the connection is in a measure preserved by the terrace-walk, but as that is entirely open to the coach-ring, and from which it cannot,

without augmenting the existing evil, be screened, no degree of privacy can be retained in the garden near the house, the coach-road entirely separating the one from the other. A coach-road to a residence is, of course, a necessary appendage, but it ought not to form part of, or to terminate in, the flower-garden. The result of such an arrangement is in the highest degree inconvenient. Nevertheless, gardens so circumstanced are by no means rare. To add still more to the unpleasantness of the example in question, one of the drawing-room windows is fully exposed to the coach-ring, rendering the interior of the room public to every one arriving at the front-door. That should always be avoided. Placing the windows of the more private apartments on the entrance front is a very common error, especially in the smaller villa residences. Such an arrangement is always a bar to the proper disposition of the grounds, and the architect should ever be induced to avoid it in his design; few instances will occur in which it cannot be effected. But while houses continue to be built without any consideration beyond that of securing a handsome front, so long will the thousand inconveniencies pertaining to residences in general have to be endured. A handsome, convenient house is the philosopher's stone of architecture—happy the man who finds it.

Fig. 3.

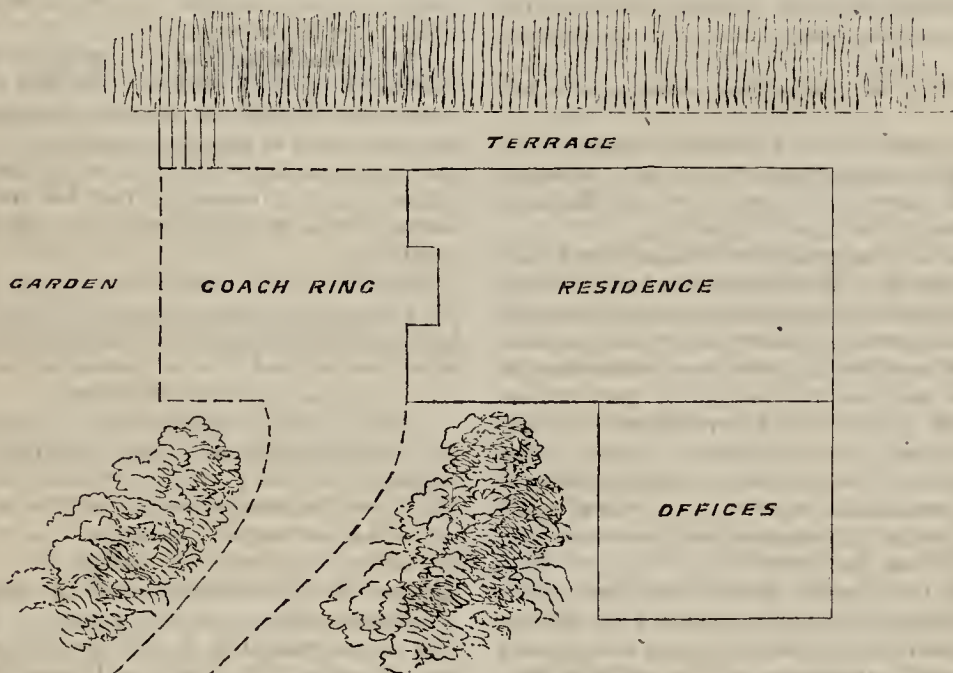


Fig. 3 illustrates the last example.

Again, houses are frequently found in positions where, although the privacy of the gardens may not be broken in upon by the coach-road, there are no means of access to the kitchen entrance and offices except by passing the front door. Such an arrangement ought never to occur; and, however limited the space, or irregular the ground, it can be avoided by exercising proper forethought when the house is built. Those who reside under such conditions know too well how many inconveniencies and unpleasant circumstances arise therefrom; and, independent of other considerations, it is impossible to retain, immediately about the entrance of the house, that degree of neatness so essential to, and, at the same time, so characteristic of, a well-kept villa residence.

If, for the sake of clearness, we imagine the plan of a house to be simply a square, or parallelogram, two of its sides, in connection with each other, should be directly in communication with the pleasure-ground and flower-gardens, another devoted to the entrance-front, and the remaining one to the offices. As regards the positions of the rooms on the ground-floor, the more private should, of course, look out on the garden fronts. The drawing-room, being the principal, ought invariably to have its windows there, and never on the entrance side. The most appropriate rooms to place there are the dining and breakfast rooms, because they will be used during periods of the day when their privacy is little likely to be broken in upon. When it is desirable to introduce the semblance of windows, where, in reality, they are not required, blank glazed ones can be

employed with excellent effect; all painted imitation should be rigorously avoided.

It is, I conceive, a mistaken idea that parts of a residence should be invariably concealed. Every room would, if judiciously blended in the composition, assist in the general effect as a whole. Every offensive object would, of course, be hidden, and due prominence given to the principal fronts; but to give an elaborate character to one part, and reduce the other to the meanness of a barn, or a union workhouse, appears to me to be highly objectionable on the score of good taste. Yet such a style of building is every day adopted, and houses that would otherwise be conspicuous and beautiful objects, both in themselves and as accessories to the surrounding scenery, are deformed by being made up of what never can be artistically combined—meanness and ornament. Every proprietor has the landable desire to render his residence as imposing as its size and style will allow. But the easiest way to defeat that object is to give, or attempt to give, undue importance to one part at the expense of the other; or, in other words, to join a mean-looking building to a highly ornamental one, under the idea that the result of the combination will be a handsome house.

To design and place a residence in a position where it shall afford its inmates all the advantages of the locality, with fewest of its inconveniencies, and, at the same time, afford ample facility for embellishment in the grounds surrounding it, demands much consideration, and its accomplishment is worthy of praise. The difficulties in the way of its realization must always render its complete attainment a rare occurrence. Even where great forethought is exercised,

many unforeseen circumstances will conspire to mar what had appeared to promise perfection. How much less chance, then, must there be of even a passable arrangement, where no attempt is made to accomplish it. Of whatever pretensions it may be proposed to erect a residence, and however simple or elaborate the grounds which are to surround it, the first step should be to *consider them as a whole*. The practical recognition of this, as a principle, will form a most important foundation for all subsequent labours.—G. LOVELL, *Landscape Gardener, Bagshot*.

DISTRIBUTION OF THE PRIZES AWARDED AT THE UNIVERSAL HORTICULTURAL EXHIBITION, PARIS.

THE distribution of the medals took place in one of the rooms belonging to the president of the *corps législatif*. M. Roucher, Minister of Agriculture, Commerce, and Public Works, was in the chair.

Beside the chairman were Count Morny, president of the "Imperial and Central Society of Horticulture;" the Duke Decazes, honorary president; M. Mony de Mornay, director of the agricultural division, the members of the Council, the members of the Jury, and of the Imperial Commission.

In opening the meeting, the chairman delivered the following address:—

"Gentlemen,—The Imperial and Central Horticultural Society, formed by the amalgamation of two societies which were at one time rivals, has just shown, in the most brilliant manner, the amount of good it can do.

"You have courageously organised a Horticultural Exhibition in the very vicinity of the Exhibitions of Industry and the Fine Arts. Instead of those former exhibitions of a day's duration, which seemed to stamp upon the results achieved a character of mediocrity, you have undertaken to show, during six whole months, the delightful productions of a science, which, in its progress and improvements, yields us more numerous and more beautiful flowers; more abundant and better varieties of fruit, which at once unfolds the luxuries of vegetation, and administers to the wants of man.

"In your great undertaking you have had to brave opposition and incredulity from the beginning; but you have kept all your promises, and nobly performed your task; you have formed a permanent flower-garden out of the dry and hard-trodden ground in the *Champs Elysees*, and opened an exhibition with products requiring to be renewed from day to day. Six hundred and fifty persons, from all parts, have contributed the most varied plants and the most ornamental shrubs. Flowers have succeeded flowers, and fruits have succeeded fruits, without interruption, and in such profusion, that the number of objects has been raised to two hundred-and-fifty-thousand, including ninety-eight thousand *Roses*, and more than twenty thousand fruits.

"Notwithstanding the frequently unfavourable state of the weather, too, your Exhibition has been visited by three-hundred-thousand persons, from all parts of the world; and I am happy to say, gentlemen, that you have accomplished this grand result without sacrificing anything to vain curiosity or false taste; without losing sight for a moment either of true principle or sound practice.

"In that Exhibition, where some foreign countries, Algeria in particular, occupied a prominent place, you have been the means of drawing attention to new plants; as, for instance, to the *Sweet Sorgho*, which will some day, perhaps, give more alcohol than sugar, because of the great proportion of uncrystallisable saccharine matter which it contains; to the *Ignama* of Japan, which may merit honourable consideration amongst articles of consumption, without taking the place of that esteemed esculent to which it has the greatest similarity; and to those fine *cottons* of Algeria, which are equal to the very best samples from Virginia.

"You have gathered together in your plant houses flowers of the rarest colours and the most singular forms, including a considerable assortment of choice *Orchids*; these objects, which are always so remarkable or curious, extracting, as it were, the warm humidity of a decaying branch. Flowers, gentlemen, which I cannot allude to, without recalling to

mind one of your distinguished members, M. Pescatore, whom death has prematurely removed from among us, and who cultivated them with so much fondness and success.

"But the plants imported of late years into France, from intertropical regions, have not made you overlook the productions or the flora of our own country. You have very properly considered that the first place belonged to our cereals, to our plants used for fodder, to our flowers, and to our fruits. The commonest annuals, as well as the most generally grown shrubs, have all received your attention; and as we admire these rich productions, which, under the skilful treatment of our horticulturists, have been increased and improved, we may well be permitted to ask if France is not the country of the most varied and beautiful flowers, as well as of the most delicious fruits?

"Perhaps, gentlemen, I am mistaken, but it seems to me that there is, in such exhibitions, apart from strictly scientific knowledge, an element of moral improvement. To present to our view such an attractive display of flowers—the eternal emblems of youth and freshness; of pure ideas and sentiments—must not the effect be to make us better? To invite us, for a season, to this study of nature, to its riches, its mysteries, its sublime harmonies, its immutable laws which regulate the life and reproduction of the humblest weed—is it not to fill the mind with more elevated and more religious feelings?

"This meeting is for the purpose of rewarding so many successful efforts. I thank you, Mr. President, for having been good enough to connect me with it. Owing to your exquisite taste in art, and your love of all that is beautiful and good, you have been allotted this year the double and delicate task of directing the labours of this Society, and pointing out the most meritorious in the Exhibition of Paintings.

"Some of the highest awards now to be made are due to the generosity of our gracious Empress and the Emperor. And his majesty has also commissioned me to honour individual merit, and the scientific services of several among you, with the highest distinctions.

"It is for you, gentlemen, to entrust me with the duty, not less agreeable, of conveying the expression of your acknowledgments to him, whose powerful hand has so gloriously raised our standard again, and who is always so prompt to promote whatever can increase the greatness, the beauty, and the prosperity of the nation."

Count Morny then addressed the meeting as follows:—

"Before calling over the names of those gentlemen who have been indicated by the jury as meriting rewards, and since it is the first time that I have the pleasure of being in a meeting of all the members of the Society, I take this opportunity to thank them for the honour that they have done me in asking me to be their President. What has made me especially sensible of that honour, is the character which they have been so kind as give to that office in my person. There were two Horticultural Societies formerly, having separate interests, and, consequently, not so strong or so powerful to attain the ends which they respectively aimed at. I was kindly informed, that if I accepted the Presidency, the two Societies would unite, and form only one for the future. I was told, that my influence in the formation of this union would be greater than that of any other person, and that no other person could contribute so much in that way to the prosperity and advancement of so important a profession. Notwithstanding my unfitness, I accepted this mission of conciliation, and now I congratulate myself for having been, if not the cause, at least the means, of a junction which will be advantageous to all.

"I must say, also, that in this matter I have been naturally propelled by a sentiment which I cannot help expressing. Man is, certainly, before what he is by his own efforts, what nature has made him; but he modifies himself according to his daily occupations and pursuits. His tastes urge him towards a certain employment of his mind, and then, from the application of his tastes, there is a reaction on his mind and character. Now, I conclude that the love of gardening requires particular qualities of mind and character. There must be great patience, great perseverance, and the most watchful attention, to obtain satisfactory results. Instead of consuming his life with feverish activity in complex com-

inations, or occupying himself with political questions, the horticulturist passes his days quietly in growing his plants and flowers, or ripening his fruit. He meditates on the hidden mysteries of Nature; he passes a quiet and contemplative life, and hopefully trusts to Heaven for a blessing on his labours. His passions, if I may use the term, must be calm; and, in short, to express the idea which I entertain, it seems to me that horticulturists must be good and studious, having a gentle, easy temper. If I am mistaken, gentlemen, you will be good enough to correct me.

"And now I must thank the lady patronesses of the Society, for their counsel and patronage are very agreeable, besides being exceedingly useful. I beg that these good offices may be always continued. This I ask as a favour; but I may, perhaps, be permitted to tell them, that for a woman to patronise and protect flowers is almost a duty."

After this address the Minister announced that by a decree of the Emperor, M.M. Morel, Andry, Jamin, and Lepère, had been named Chevaliers of the Legion of Honour. These gentlemen were then decorated by the Minister and Count Morny. After the Secretary had read the list of awards, eight silver medals were distributed to workmen who had distinguished themselves by long and honourable service.—K.

THE POULTRY CHRONICLE.

POULTRY SHOWS.

ANERLEY. July 15th, 16th, 17th, and 18th.

BRISTOL. June 25th and 26th. Sec. Robert Hillhouse Bush, Littlefield House, Clifton, Bristol. Entries close 1st of June.

ESSEX. At Colchester, 8th, 9th, and 10th of January, 1857. Secs. G. E. Atwood, and W. A. Warwick.

NORWICH. June 20th. (Norfolk Agricultural, for Subscribers only.) Sec. Mr. E. C. Bailey, Little Oxford Street, Norwich. Entries close May 31st.

WHARFDALE. April 18th, at Otley. Sec. Mr. T. Metcalfe, Otley.

WINDSOR POULTRY EXHIBITION. At Windsor, 4th, 5th, and 6th of June. Secs. Thos. Chamberlain, and Henry Thompson. Entries will close May 10th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

THE POULTRY CONGRESS.

I DOUBT whether the wars of the Frogs and the Mice have not found as many readers as the histories of the great struggle in the Peninsula some years since. Antagonism, in some shape or other, is the history of man, and that implies contests; they, again, involve success and defeats. When men get tired of a protracted warfare they seek some means of withdrawal. The favourite method is a Congress, where the number of members shall conceal or swamp the triumph of the victor, or the mortification of the defeated, and where there is hope, that as the successful are few in numbers, the defeated and the make-weights may gain, by importunity and worry, that which they could not accomplish by force.

It is generally after some great action, or during a season when active warfare is impossible, that these things are thought of. It is an indubitable proof that one party is disposed to cry, "Hold, enough."

So much for generalities. In the "*Poultry Gazette*," we read the announcement of a Congress; and, as in duty bound, we sent a reporter to attend on the spot. We purpose publishing reports as they arrive. We must be content, sometimes, to retail "*on dits*," as we need not say the discussions are held with closed doors.

February 13, 10:30.—The Russian minister has arrived. Seeing that Russia Proper has not yet produced a great fowl, you will not be surprised to hear she is represented by one of the *Polish* breed. There is a report, that a Courlander will shortly come to assist. I have just seen him; he is a proud-carriaged bird, but has such a covering to his head, it is almost impossible to say what he is like.

10:45.—The English envoy is come. He is a right noble, stately, old *Dorking*, looking like a man with a good balance at his bankers, and able to take care of it. He did not slip in like the Russian, but walked leisurely along, bearing unflinchingly the gaze of the crowd. His assistant, a *Black-*

breasted Red Game, seemed disposed to resent everything, and seriously injured one who got in his way.

11:1.—The representative of France has just called to welcome the new comers:—a gallant *Crève-cœur*, dignified, without impudence, and just enough of the *petit maître* to be "*piquant*." His easy carriage showed his courage, and his spurs warned those who would take liberties that he was able to resent them.

12.—The Turkish plenipotentiary has just made his appearance. He is one of the new school, a *Serai ta ook*, educated in Europe, and acquainted with all its habits and customs. He entered his hotel with perfect coolness, and while his appearance is by no means wanting in dignity, there is still a little of the old Mahomedan listlessness about him. He is accompanied by a native of Wallachia, the *Ghoorook*.

He was closely followed by the Austrian, and although we tried closely to discover his breed, we could not;—he had a little of the English *Dorking*, something of the French *Crève-cœur*, and yet, at other times, he looked exactly like the Russian Polander. He was, moreover, more self-important and noisy than any of his predecessors.

Sardinia was represented by a beautiful *Game Bantam*, and we have seldom seen a more gallant little bird. He made way for some of his more powerful colleagues with such true modesty, and yet with such a graceful bearing, that all were prepossessed in his favour.

We believe the Congress is now complete, so far as its actual members are concerned.

February 16.—The labours have not yet commenced. There has been interruption, owing to the attempt of a tame Prussian Eagle to get admission. He appears a strange, sleepy bird, and talks incoherently at times. It is said he was formerly a noble creature, and some of his breed are so still. He was accompanied by a host of little fry, who have, at some time or other, figured as "*Cocks-of-the-Walk*" in the "*various*" class. They have, however, been lumped; and nine or ten have been made subservient to one, who then assumes the lead. Many, even of these, cannot muster entries enough to make them of any sort of importance, except in their own eyes,—and, driven into insignificance, they have joined a society, or *bond*, and assume to dictate. When told they were not competitors, they admitted the fact, but said they had observed a strict neutrality, interfering with no party. The Eagle also observed that, though not a competitor, he had always been a subscriber; and that he had thrown all his influence in the scale for the success of the movement;—that he had softened asperities, &c., &c. Towards the conclusion of his appeal he was quite overcome, but he was well supported by his backers.

February 17.—It is said the Eagle will be admitted.

February 18.—It is said he will not. The argument used is, that those only who compete should have a voice. His answer is, that he subscribed, and that entitles him to a vote.

Nothing is talked of here but a reported quarrel between the Austrian Cock and the Eagle. It began by the latter having upbraided the former with voting for his exclusion, while he was himself in the same position, *i.e.*, a non-exhibitor. The Austrian evidently felt the remark, but replied that the Eagle's assumption was a false one; it was true, he (the Austrian) had not exhibited, but he had made his entries, and, if the show was continued another year, he meant to compete. This is but an "*on dit*;" but it is generally believed. A fowl, who was present, tells us he doubts the truth of it, for he saw the Eagle at supper afterwards, and he seemed quite happy.

All sorts of rumours. It is now said there is a coolness between the Austrian and the *Game Bantam*. The former reproached the latter with having been beaten by him some time since. He retorts by saying, he was then alone in his class, but now it would be more difficult to snatch the prize from him. He also says, and the public side with him, that his breed is better known now than it was then.

You will not be surprised that in my anxiety to keep you "*au courant de toutes les affaires*," I quote from the "*on dits*" of the day, and the current rumours.

It is said, that the Polander will propose to the *Serai ta ook* that a class be set aside for them, and that it be closed against all other exhibitors, and that each shall exhibit the same number of pens. This was mooted in the "*Reunions*,"

last night. The *Serai* is, evidently, no match for the *Polander* when they are by themselves; but, backed by the *Dorking* and the *Crève-cœur*, he said he would consent to it, provided each showed but one pen, the age and number of the birds to be determined beforehand. The *Polander* withdrew; but, it is said, he is trying both promises and intimidation to induce the *Serai* to come to a secret arrangement.

Persons interested in the question are flocking in. A *Pencilled Hamburgh Cock* arrived last night from the Hague; also a *Ptarmigan*, from Sweden and Norway. The reporters and secretaries of the different leading shows are also on the spot.

It is said in this day's *Chronicle*, that the *Polander* will ask a suspension of all shows during four months, that there may be time to arrange difficulties. This device will, we hope, be seen through. It is known all their exhibition birds were either killed or worn out in the last season, and the only object is to gain time. Again, this would embrace the most favourable period, and the difficulties in the way of shows afterwards would enable the *Polander* to conceal his real losses and position. It is unquestionable that the *Dorking* and *Crève-cœur* have now the game in their own hands, and the breeds they represent will not be trifled with.

On the other hand, the Northern Exhibition Pen says—"If the *Polander* asked for a Congress, it was not from weakness, but because he was aware the justice of his cause must become apparent." It also hints that the alliance between the *Dorking* and *Crève-cœur* is not so close as people fancy.

Most startling announcement. I have just heard that a second Congress will be held of the representatives of the breeds not present at the first. It has assumed some importance, from the adhesion of a *Brahma Pootra*, specially sent from the United States. He has had an interview with the Eagle, and the difference between the two was striking. The former said, when he came out, that the American Eagle could look straight through such a clawed up old thing as that; but it was like all the notions of the old world—clean used up. We are afraid the new comer will be too many for the "bond." A *Spanish* cock has appeared on the scene, a right noble, Castilian-looking bird, but he has no place. He does not belong to the Congress, and he is too proud to join the others.

There was a quarrel, last night, between two of the "bond;" it turned on a point of etiquette and precedence. One declared, that, although in the various class, he and his fellows had once been deemed worthy of separate adjudication. The other, while he admitted the fact, said, that it was true such was the case, but he took no prize, whereas HE had been distinguished over all competitors. The *Brahma Pootra* did all in his power to make it a fight, but, finding his efforts useless, declared that no number of such birds would ever make a class or a show, and, for his part, he would annex them to his own class.

The Congress formally began its labours yesterday. The sitting was principally taken up with the production of credentials and other preliminaries. On the part of English poultry, the most excellent *Dorking*, head of all classes, winner of silver cups at Birmingham, Liverpool, and Anerley, weighing ten pounds, and excellent for the table, assisted by the most gallant *Black-breasted Red Game*, winner of twenty battles, and decorated with numerous scars. These having declared their qualities and titles took their seats. They were followed by—

1. The high and mighty *Crève-cœur*, tracing his lineal descent for six centuries, highly distinguished at the Paris Exhibition, 1854, and appreciated on all the tables in Europe. As president in the capital, he did not name his secretary, but at once took his seat as president.

Next in order was the noble and puissant *Polander*, decorated with the medals of many victories, and chief of the order of Top-knots. Although looked upon as the author of all the mischief this Congress has to remedy, yet none could see him as he entered with his crest erect, and his colours shining in the sun, without admitting he looked a noble bird. His secretary is unknown to the public, and has an unprouncable name.

The accredited Fowl of the Kaiser then declared his quality, but in so low a tone of voice we could only catch,

Knight of the Cameleon, and Grand Cross of the Order of Proteus.

The *Game Bantam* spoke up nobly, as having been seldom much distinguished hitherto, yet anxious to support every improvement. He described himself as of ancient race; that he had been partially successful, and that although beaten some time since, he had shown no weakness. He wore two silver medals.

The Sublime *Serai la ook* recapitulated his titles and honours, without the least excitement, and resumed his place.

The Congress was then formally declared to be opened.

WHAT IS MEANT BY A PAIR OF PIGEONS?

IF I order of one who advertises Pigeons at so much *per pair*, am I to expect the pair to consist of *cock* and *hen*? It has always been my impression that such should be the case. Some time ago, a person named Farrant, of Southampton, advertised Runt Pigeons at so much *per pair*. I ordered two pairs for a friend, which Mr. Farrant refused to send without *cash*. I at once remitted him a Post-office Order for the amount, and in process of time received four cock birds. I remonstrated with Mr. Farrant, and returned two of them, wishing him to send me two hens in exchange, and promising to pay him carriage back of the two cocks, and anything extra he might require for his trouble. This Mr. Farrant refused to do, saying they might be all four cocks, although it was not very probable; and adding, that he did not advertise them *cock* and *hen*. I replied, that all of one sex would be of no use whatever, and urged him to be honest. He then, in return, said he had witnesses to prove he had sent two cocks and two hens! Not hearing from him for some time, I wrote to him to send me the two back again, as they would be better than nothing. He refused to do this, and in his letter addressed to me, prefixed the word "Scurvy" on the envelope. I wrote to the police about him, and found he had removed to Oxford, from whence I received a line from him, stating that, perhaps, my two Pigeons were at some railway station in some part of England!! On referring to the railway officials, I found the two Pigeons had been for two months at the London Station, and that I could have them by payment of carriage to Southampton from Louth, and threepence per week for their keep. On forwarding the money they were promptly restored to me.

I thought it my duty to ask the question I have done at the commencement of this note, to warn all who would be purchasers of Pigeons against any person who may advertise such birds to be sold in pairs, lest, if they order and pay for, say, three or four pairs, they may receive six or eight cocks, or an equal number of hens!—GEORGE BOOTHBY, *Holme Cottage, Louth*.

[Beyond all doubt, when "a pair of Pigeons" is spoken of, or advertised for sale, a Cock and Hen are understood to be intended, and when Mr. Farrant inserted the advertisement he knew, or ought to have known, which in the eye of the law is the same, that every one who read his advertisement would believe that a Cock and Hen were so intended. The Judge of a County Court, if we are in possession of all the facts, we are quite sure would make Mr. Farrant refund the money, and pay all the expences.]

MANAGEMENT OF POULTRY FOR EXHIBITION.

IN a former paper we contrasted between discipline and the want of it in the management of Poultry. We will now, following out our simile, see what *proper* discipline should be. It will always involve a certain amount of care and pains-taking, but it must avoid anything like softening or weakness. If by anything we say, or have said, we induce our readers to use artificial warmth, to crib or confine their chickens when young, we are woefully misunderstood. Raise them as carefully as you will, but warm them with generous food, and when their bellies are full and their hearts are joyous, let them face the weather, whatever it may be, and

grow into muscle and strength. They will not be chilled by a trifling change in the weather, and will not hurry to cover if a few drops of rain fall. Let them have a dry, sheltered spot where there is plenty of dust, let them have a heap of rubbish somewhere near, and let real horse-manure be thrown upon it. This will induce them to scratch and work among it, and bring all their muscles into play. They will then grow in any weather. This is proper discipline.

If they have stoves, hot-water pipes, and the many modern appliances for superseding nature, they become weak, their feathers are loose, they do not grow, a breath chills them, a drop of water scares them. If they do grow, long legs, large joints, taper necks, large heads, crooked backs, all testify to the hothouse-treatment. Such were seen some years since, when Poultry rearing was attempted by steam (of hatching, we say nothing, it was eminently successful); and those who belonged to the "manias" of that day can recollect, at every exhibition, a pen of such curiosities, that the beholder was immediately struck with surprise, and casting his eye upwards in search of information respecting them, found it on a ticket setting forth they were "hatched by steam." This is generally the result of artificial heat. Where Poultry, as in the case of Aylesbury ducklings, are intended to be food at a very early age, any appliance that will urge them forward is a good one; but where strength of constitution is needed, no hothouse process will answer. If such is adopted, the chickens should have a place heated to a temperate atmosphere, and kept in it till the time of year has come round for the same temperature to be met with out-of-doors. But as we believe, that even in such a case, the naturally reared chickens, though months younger, would beat the object of so much care, we shall still class this as improper discipline.

And now, a word for all. Do not over-tax the birds. They can only bear a certain amount of exhibiting. It is positively painful for a close observer to watch the progress of a first-rate pen in some exhibitors' hand. What startling excellence at the July Show—the cognoscenti shake their heads and say—"If these are taken care of, nothing can beat them at Birmingham." They are seen again at the next show, and again win easily; a third time the difference is less naked between them and their rivals. The fourth time they win in spite of evident tokens of exhaustion, but it is a dear victory. The owner finds, too late, he has killed the goose that would lay the golden eggs, and all his painstaking will not avert defeat. The same birds are seen again, pale faces, withered combs, loose feathers, and want of spirit, all testify to the work they have done; and a pen not half so good, in reality, snatches the richest prize from their grasp by sheer better condition.

RECENT POULTRY SALES.

Sir Archibald Macdonald sent forty lots of Spanish fowls to Mr. Stevens's last sale. The collection included a larger number of superior cockerels than have been seen at any recent sale, but they did not realise very high prices. Six birds, lots 33 to 38, produced £10 15.

A well-known lady amateur in Hampshire sent several pairs of very superior Golden-spangled Polands, which sold far below their value; and three pairs of very poor White Polands that produced much more than they were worth.

Six Pouters, from Mr. Bult, produced £4 15.

Mr. Forrest, of Dublin, sent a few very superior light-pencilled Brahmas, but they did not realise the prices that they have been lately making; not producing more than about 12s. each.

CLASSIFICATION OF PIGEONS.

As the judging and classifying of fancy Pigeons is creating considerable attention at the present time, it may not be out of place in THE COTTAGE GARDENER to publish a few remarks on the subject, in order to induce fanciers to adopt a scientific and natural classification. To commence, therefore, at the proper end, we must begin with the Doves, or Arboreal Pigeons, of which I shall only enumerate our native

varieties; next in order come the wild Pigeons, or terrestrial Doves, if I may so designate them; then follow all fancy Pigeons, whether they be the pampered pets of the old fanciers, or the less cultivated kinds, each of which bear decided and distinct marks, points of breed and properties, which prove their distinctness, and which defy any one of the old fanciers, who call them rubbish, to produce the like from the Blue Rock, or Chequered Dovehouse Pigeons, by any system of domestication they may please to invent; and, lastly, the Toy Pigeons, which undoubtedly owe their origin to the Chequered Dovehouse Pigeon, which they so closely resemble in form, habits, and manners, as to leave no doubt on my mind of their intimate connection with that source, their variations of plumage, an occasional turned crown, or feathers on their feet—being the effect of domestication, assisted by crossing with one or other of the fancy sorts, thus dividing the English Pigeons into four classes, each of which contains many kinds or varieties.

THE FIRST DIVISION COMPRISES OUR NATIVE DOVES.

1. The Ring Dove, or Great Wood Pigeon, the Cushat of the poets, or the Wood-Quest of North Ireland. (*Columba Palumbus* of naturalists.)

2. The Stock Dove. (*Columba Oenas*.)

3. The Turtle Dove. (*Columba Turtur*.)

These three being arboreal in their habits, are, therefore, Doves and not Pigeons, and are, likewise, from their roving habits, not capable of domestication.

THE SECOND DIVISION INCLUDES OUR NATIVE WILD PIGEONS.

4. The Blue Rock Pigeon, or Rock Dove. (*Columba livia*.)

5. The Chequered Dove-house Pigeon, or Dove-cot Pigeon, known also as the Common Rock, or Runt, Duffler, or Rocky. (*Columba affinis*.)

These two kinds are true Pigeons; they do not frequent trees, and have a fixed abode; they, too, are sociable, living in communities, and are capable of domestication—the former with difficulty, the latter with ease. Both are to be found in this country, either in a wild or partially domesticated state. Naturalists consider these as the progenitors of all domestic Pigeons. I am inclined to admit that of some they may be, but not of all.

THE THIRD DIVISION CONTAINS ALL FANCY PIGEONS,

Such as have distinctive points, or properties not found in any other sort. In enumerating them, I shall, in deference to the old fanciers, place the four favoured kinds first on the list.

6. The Carrier (*Columba Tabellaria* of Moore), with its varieties of Horseman and Dragoon.

7. The Tumbler (*Columba Revolvens* ditto), and its varieties, short-faced, flying, or feathered-footed.

8. The Pouter (*Columba Gutturosa*), and its English, Dutch, German, and French varieties.

9. The Runts (*Columba Gigantea*) either Roman, Leg-horn, Spanish, or Norwegian.

10. The Jacobin (*Columba Cypria*, *Cuculata*) with the Ruff and Capuchin.

11. The Fantail, or Broad-tailed Shaker (*Columba Tremula Laticauda*).

12. The Trumpeter (*Columba Tibicen*).

13. The Laughing. (*Columba Ridens*.)

14. The Barb or Barbary Pigeon (*Columba Numidica*), the Polish Pigeon of some.

15. The Mahomet or Mawmet (*Columba vultu nigro*), now, I believe, extinct in England.

16. The Turbit. (*Columba Fimbriata*.)

17. The Owl. (*Columba Bubo*, *Nominata*.)

18. The Finikin (*Columba in Gyrum Flectens*), and its varieties, the Turner and Smiter.

19. The Frill Back (*Columba Crispata*), perhaps the Friesland Runt may be a variety of the same.

20. The Lace or Silky Pigeon (*Columba Sericata*).

21. The Antwerp. (*Columba Tabellaria Belgica*.) This Pigeon, in its pure state, undoubtedly belongs to the second division, it being, I believe, the wild Mealy Rock of Belgium; but I have placed it here, being a domestic Pigeon in this country, unsurpassed by any in sagacity, though in its mixed state (that is, crossed with the Owl or Dragoon) its proper place would be with the Toys or Composites in the next division.

A German writer on Pigeons says, that if a Fantail and

Barb are paired together, that the bastard offspring are unprolific *inter se*. Is a stronger proof necessary to prove their originality and distinctness? Many, too, of the above have certain places indicated from which they were known first to have come.

THE FOURTH DIVISION

Comprehends all the inferior fancy Pigeons, or Toys, such as have no distinguishing point or property but feather, or that have only occasionally a turned crown, or feathers on the feet, obtained at the commencement from some more worthy breed. The great distinction between the true fancy kinds, and the varieties of Toy Pigeons will at once be perceived. Thus, a Toy, if it once loses its only property (feather) is no longer valuable; it is then simply a common Runt, or Mongrel; whereas, breed a Tumbler, Pouter, Fantail, Jack, Barb, or Lace Pigeon to any colour or marking, it still remains the same kind.

THE TOYS ARE AS FOLLOWS:—

- | | |
|-----------------------------------------|---------------------------------------------|
| 1. The Suabian and other Spangled. | 10. The Stork. |
| 2. The Nun. | 11. The Helmet. |
| 3. The Priest. | 12. The Shield. |
| 4. The Monk. | 13. The Magpie. |
| 5. The Archangel, or Bull-finch Pigeon. | 14. The Lahore. |
| 6. The Breast, or White Archangel. | 15. The Gull. |
| 7. The Stomacher, or Latz. | 16. The Swallow (properly Tern.) |
| 8. The Spot. | 17. The Swiss. |
| 9. The White Spot (or Weiss Bläschen). | 18. The Starling breasted. |
| | 19. The Ice. |
| | 20. The clear blue, without bars (or Hohl.) |

These Toys are all very pretty and useful Pigeons, and well adapted to the country amateur; but they should not be allowed to compete on equal terms with the fancy kinds, in division Three, which are all distinct breeds, while I regard these twenty varieties of Toys as only domesticated varieties of the Dovehouse Pigeon.

At shows, an extra class may and ought to be provided for any new variety, or any imported kinds, domestic or wild, Pigeons or Doves, which may include all the tribe of *Columba* from the extinct Dodo, or the *Columba Coronata* of the Moluccas, to the Chinese, or the little West Indian Pigeons no larger than a sparrow.—B. P. BRENT.

WELLINGTON (SALOP) POULTRY SHOW.

This was held at the Town Hall, on February the 26th and 27th. The Judge, Edward Hewitt, Esq., Sparkbrook, Birmingham, awarded as follows:—

SPANISH.—13. First, Silver Cup, Captain Hornby, R.N., Knowsley Cottage, Prescott, Lancashire. 15. Second, William Wright Brundrit, Runcorn, Cheshire. Highly Commended.—3. Daniel Parsley, Rock Cottage, Stapleton-road, Bristol. 7. James Dixon, Bradford, Yorkshire. 8. William Pointon, Burslem, Staffordshire. 14. James Hull, Hereford. 17. Lydia C. Stow, Bredon, near Tewkesbury, Worcestershire. Commended.—5. Edward Page, Hawthorn Villa, Smethwick, Staffordshire. (A very superior class.)

DORKINGS (Of any colour).—30. First, Silver Cup, William Wright, West Bank, Widnes, near Warrington. 31. Second, William Wright, West Bank, Widnes, near Warrington. Highly Commended.—23. Hon. and Rev. N. H. Hill, Berrington, Salop. 25. Mrs. Thomas Townley Parker, Astley Hall, Chorley, Lancashire. 26. Mrs. Thomas Townley Parker, Astley Hall, Chorley, Lancashire. 29. Frederick A. Philbrick, Colchester, Essex. 34. Captain Hornby, R.N., Knowsley Cottage, Prescott, Lancashire. 36. W. G. K. Breavington, Vicarage Farm, Hounslow, Middlesex. Commended.—20. Isaac Taylor, Abbey Foregate, Shrewsbury. (White.) (The competition in this class excellent.)

COCHIN-CHINA (Cinnamon and Buff).—52. First, Silver Cup, G. A. Gelderd, Acknggend, Kendal. 51. Second, John Chatterton, 25, Islington, Birmingham. Highly Commended.—43. Henry Tomlinson, Balsall Heath Road, Birmingham. (Buff.) 48. William Dawson, Upper House, Hopton Mirfield, Yorkshire. Commended.—40. Thomas Streech, Marsh Lane Brook, Liverpool. (Buff.) 41. Thomas Streech, Marsh Lane Brook, Liverpool. (Buff.)

COCHIN-CHINA (Any other colour).—62. First, William Dawson, Upper House, Hopton Mirfield, Yorkshire. (White.) 61. Second, William Cannan, Bradford, Yorkshire. Highly Commended.—59. George C. Peters, 101, High-street, Birmingham. (White.) 63. Robert Chase, Moseley Road, Birmingham. Commended.—58. G. C. Atkins, West House, Edgbaston, near Birmingham. (Partridge.)

GAME (Black-breasted and other Reds).—68. First, Henry Worrall, Knotty Ash House, Liverpool. (Brown-breasted Reds.) 70. Second, G. C. Atkins, West House, Edgbaston, near Birmingham. Highly Commended.—78. George A. Magee, Acton Scott Rectory, Salop.

(Brown Reds.) 84. C. R. Titterton, Birmingham. (Brown Reds.) Commended.—75. G. P. Evett, Baschurch, Salop. (Brown Reds.) 77. George A. Magee, Acton Scott, Rectory, Salop. (Brown Reds.) 82. W. J. Bentley, Wellington, Salop. 83. Captain Hornby, R.N., Knowsley Cottage, Prescott. 90. Richard Tew, junr., Admaston, Salop.

GAME (White and Piles).—98. First, Captain Hornby, R.N., Knowsley Cottage, Prescott, Lancashire. 94. Second, John Fowler, Acton Reynold, Salop. (White.) (An indifferent class.)

GAME (Duckwings and other Greys and Blues).—112. First, Silver Cup, William Anslow, Eyton, Wellington, Salop. 100. Second, John Rodbard Rodbard, Aldwick Court, Langford, near Bristol. (Duckwings.) Highly Commended.—103. Thomas William Jones, Wellington, Salop. (Duckwings.) 110. William Dawson, Selly Oak, Birmingham. Commended.—106. George C. Peters, 101, High-street, Birmingham. (Birchin Grey.) (This class extraordinarily good.)

GOLDEN-SPANGLED HAMBURGS.—122. First, G. C. Adkins, West House, Edgbaston, near Birmingham. 119. Second, Henry Worrall, Knotty Ash House, Liverpool. Highly Commended.—123. A. G. Brooke, Cumberland-street, Woodbridge, Suffolk. 125. Edmund Turner, Stone-elough, Kersley, near Manchester. 131. J. B. Chune, Green Bank, Coalbrookdale, Salop.

SILVER-SPANGLED HAMBURGS.—142. First, Silver Cup, J. B. Chune, Green Bank, Coalbrookdale, Salop. 146. Second, Thomas William Jones, Wellington, Salop. Highly Commended.—136. G. C. Atkins, West House, Edgbaston, Birmingham. 143. J. B. Chune, Green Bank, Coalbrookdale, Salop. Commended.—135. Charles Adams, 5, High-street, Windsor, Berks. 145. Thomas William Jones, Wellington, Salop. (An excellent class.)

GOLDEN-PENCILLED HAMBURGS.—156. First, Silver Cup, J. B. Chune, Green Bank, Coalbrookdale, Salop. 153. Second, Thomas McCann, Greyham House, Malvern, Worcestershire. Highly Commended.—149. William C. Worrall, Rice House, Knotty Ash, Liverpool. 157. H. M. Lucock, Upper Berwick House, near Shrewsbury. Commended.—158. C. R. Titterton, Birmingham.

SILVER-PENCILLED HAMBURGS.—160. First, Edward Archer, Malvern. 168. Second, Thomas William Jones, Wellington, Salop. Commended.—164. Captain Henry Corbett, Aston Hall, Shiffnal, Salop. 169. John Brundrit, South Bank, Runcorn, Cheshire. 170. Thomas Lyon Fellowes, Beighton Rectory, Norfolk.

POLAND FOWL (Golden or Silver).—177. First, Silver Cup, Mrs. Charles Coleridge, Eton, Windsor. (Silver.) 173. Second, G. C. Adkins, West House, Edgbaston, near Birmingham. (Highly commended the whole class.)

POLAND FOWL (Any other colour).—191. First, Mrs. Charles Coleridge, Eton, Windsor. (White.) 193. Second, Edward W. Haslewood, Bridgnorth, Salop. (White-crested Black Polands.)

TURKEYS (Of any age).—194. First, John Rodbard Rodbard, Aldwick Court, Langford, near Bristol. 196. Second, Miss Elsmere, Boreton, near Shrewsbury. (Cambridge.)

DUCKS (White Aylesbury).—199. First, Isaac Taylor, Abbey Foregate, Shrewsbury. 197. Second, G. Franklyn Ward, The Grove, Hadnal, Shrewsbury. Highly Commended.—202. Thomas Jukes, jun., Tern, Salop. 204. Lydia C. Stow, Bredon, near Tewkesbury, Worcestershire. Commended.—203. Thomas Jukes, jun., Tern, Salop.

DUCKS (Rouen).—207. Second, H. Evett, Wellington, Salop. (First prize withheld.)

EXTRA STOCK.—Highly Commended.—214. William Dawson, Upper House, Hopton Mirfield, Yorkshire. (Sera Ta-ook, or the Sultan Fowl, from Constantinople.) Commended.—209. Thomas Taylor, Burleigh Villa, Salop. (Rumpless or Persian.)

CANARY BREEDING.

It was with much pleasure I lately read, in the columns of THE COTTAGE GARDENER, a chapter or two on the above subject, by your old correspondent, "B. P. Brent," and now write to ask a little further information connected with it. Last season, being anxious to try my hand at Canary breeding, I obtained two or three pairs for that purpose, but was very unsuccessful, only saving four from the same number of nests. The first nest of five eggs were all hatched (this I thought fortunate); one, however, fell out of the nest when about a week old, and died, and the others dropped off when about to shift for themselves, although strong, hearty-looking birds. I gave them plenty of hard, chopped egg, mixed with bread crumbs, and ground hempseed with mawseed, but without effect. Can Mr. Brent give me a hint or two as to the cause of this, and how it is possible to remedy this for the future? He also states, at the breeding season some old pounded mortar, mixed with a little salt, should be given them; this I am afraid to do, as I am told it would soon throw them into moult. Can you also inform me what kind of seed "Gold of Pleasure Seed" is, mentioned by "B. P. B.?" as I am unable to procure any at the seed shops in this locality, they never having heard of the name before. The plan I adopted was to take the eggs out of the nest as soon as laid, substituting

a chalk one, and replacing them as soon as three were laid; by this means, I found them to hatch nearly together. Any further information on the above subject will be gladly received by myself and other amateur Canary breeders.—ARGUS.

[Young Canaries and Mules frequently die soon after they feed themselves, especially if late hatched. I am inclined to think it is frequently owing to too high feeding; for instance, too much hemp or rapeseed, though it mostly happens when they change their nest feathers. Damp, or exposure to draughts, is then a frequent cause of inflammation of the bowels, and death. I know of no remedy, unless warmth, and soft food, as bread-and-milk, sweetened with moist sugar, may assist nature to throw off the disease. Birds, while breeding, as also young birds, should be abundantly supplied with green food; seedy chickweed, I think, is the best; groundsel, shepherd's purse, plantain, and dandelion heads are also good. No fear of giving them too much of these, provided the leaves are fresh. The old mortar should be wetted, a little salt being added, and dried in lumps the size of an hen's egg or thereabouts, and placed in the cage for the breeding hens to peck. Before I adopted this plan, I lost several hens every year from being egg-bound; since, however, I have not lost one. I do not find it throws the birds into the moult. The plan you mention of removing the eggs is very good in Mule breeding, or where the cock is troublesome in pulling the nest to pieces or eating the eggs; but if all goes on well, the less they are interfered with the better.

Gold of Pleasure seed I know not anything more about, than that a few years back a great talk was made about its being cultivated to feed cattle with. A friend, who had grown some, said the birds were very fond of it, and gave me a quantity, which I used for my birds, and found it very suitable.—B. P. B.] (Gold of Pleasure is *Camelina sativa*, or *Myagrum sativum*. It is cultivated in Germany for its oil-producing seed.—ED. C. G.)

OUR LETTER BOX.

HENS NOT LAYING (E. H. S.).—Though your hens are Cochins and the cock a Dorking, that has no influence over their laying. Hens lay as well without a male companion as with one. As "they are healthy, and their combs very red," you will have had eggs, probably, before you peruse this. If the hens have not laid by that time, we think their being "fed on the best of everything" may give the clue to the deficiency. Reduce them to half-allowance, but let them have as much green food as they choose.

HENS NOT INCLINED TO SIT (A Subscriber).—Here is a totally different complaint; the owner of "thirty hens laying," which some of them have continued "doing since November," cannot get one "inclined to hatch." Our correspondent does not state what breeds they are. Poldlands, Hamburgs, and Spanish, rarely become broody; nor is there any mode of inducing a hen to sit that we know of.

DISTORTED EGGS (W. Wright).—The egg system of your hen is inflamed. Keep her on boiled rice and potatoes, with plenty of green food, such as grass; and give her, daily, a pill, containing one grain of calomel and one-twelfth of a grain of Tartar emetic, until she ceases to lay such ill-formed eggs.

INFLUENCE OF MALE BIRD (I. M.).—A single day is sufficient, and it will last for three weeks.

TUMOURS IN POULTRY.—"One of my hens has a large tumour just above the leg. It appears to have broken, but is still nearly as large as an egg. Is there any cure? Or will it be better to kill her? What is the probable cause of this disease, as prevention is better than cure? Is it contagious?"

[The tumour is, in all probability, either a serofulous enlargement of the glands, or of the nature of a wen. In either case it is not contagious. If of a serofulous character, the cause is either an hereditary predisposition to the complaint, or it arises from exposure to damp and cold. If a wen, no explanation can be given of its probable cause. A new wen may be easily removed by an operation; but all fowls with serofula should be killed, as their chickens are predisposed to the disease.]

BRENT GOOSE.—"During the severe weather of the winter of 1855, a poor man, proceeding to his work on a potato plat in the undercliff, observed two strange birds on the sea-shore, which, on his approach, took to the sea; not, however, appearing to care much for his presence. On his return he observed them again, and, getting between them and the sea, contrived to catch them both successively, as they blundered against the precipitous cliff. He kept them both alive during the summer, when, the female bird having been stolen from him, he sold the remaining one to me. It appears, from Yarell, to be a *Brent Goose*. Would you kindly inform me whether it will breed with the common goose? I should be very glad to give him a companion; or I should be better pleased, having no water near, to exchange him for other poultry, of which I am a fancier. To some of your readers he might be a valu-

able acquisition; and if you would be so kind as to inform me what he is worth, I should be very glad to communicate with any one on the subject.—M. A., Sidmouth."

"P.S.—Can any correspondent in Devonshire recommend to me a good straw hive-maker?"

LONDON MARKETS.—MARCH 3RD.

COVENT GARDEN.

Our supplies, in a general way, are much better this week; and although a marked improvement has taken place in the weather, considerable difficulty is felt in making higher prices for articles in daily use; for instance, *Rhubarb*, *Savoy*, and other rough produce barely maintain the rates quoted a fortnight ago. Of *Potatoes*, the consignments are heavy, and none sell freely but good, sound samples. Continental produce comes exceedingly good, and we have still to report large arrivals of *Brocoli* from the West of England. *Hothouse Grapes* are now over for a time.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s.
" dessert	6s. ,, 10s.
Pears	8s. ,, 12s.
Pine-apples, per lb.	8s. ,, 10s.
Foreign Grapes, per lb. 2s. ..	3s.
Foreign Melons, each	2s. ,, 4s.
Oranges, per 100	4s. ,, 10s.
Seville Oranges, do.	6s. ,, 12s.
Lemons	6s. ,, 12s.
Almonds, per lb.	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 22s.
Nuts, Brazil, per bushel	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts per bushel ..	15s. ,, 24s.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	4s. to 6s.
Brocoli per bundle	1s. ,, 2s.
Savoy	1s. ,, 2s.
Greens, per doz. bunch ..	4s. ,, 6s.
Spinach, per sieve	— ,, 4s.
French Beans, per hundred	3s. ,, 4s.
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz.	6d. ,, 9d.

Beet, per doz.	1s. to 1s. 6d.
Potatoes, per cwt.	3s. ,, 6s.
Onions, young, ditto.	1d. ,, 2d.
Turnips, per bunch ..	3d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Horseradish, per bundle	1s. 6d. ,, 2s. 6d.
Shallots, per lb.	6d. ,, 1s.
Lettuce, Cos, each	6d. ,, 8d.
" Cabbage per doz. 2d. ..	3d.
Endive, per score ..	1s. 6d. ,, 2s.
Celery, per bunch.	9d. ,, 1s. 6d.
Radishes, Turnip, per dozen bunches	6d.
Water Cresses, ditto ..	6d. ,, 9d.
Small Salad, per punnet	2d. ,, 3d.
Artichokes, per lb.	2d.
Asparagus, per bundle ..	5s. ,, 8s.
Sea-kale, per punnet ..	2s. ,, 3s.
Rhubarb, per bundle ..	6d. ,, 1s.
Cucumbers, each	1s. ,, 3s.
Mushrooms, per pot ..	1s. 6d. ,, 2s.

HERBS.

Basil, per bunch	4d. to 6d.
Marjoram, per bunch ..	4d. ,, 6d.
Fennel, per bunch ..	2d. ,, 3d.
Savory, per bunch ..	2d. ,, 3d.
Thyme, per bunch ..	2d. ,, 3d.
Parsley, per bunch	2d. ,, 3d.
Mint, per bunch	2d. ,, 4d.
Green Mint	6d. ,, 8d.

GRAIN AND SEED.

FRIDAY, FEBRUARY 29.—The supplies have not materially increased since Wednesday, and altogether they are moderate this week. This morning the Wheat trade rules quite at Monday's currency, the demand being contracted. Barley steady. Oats find a poor consumptive demand, but Factors are disposed to sell cheaper. All other things command the quoted currency, with a limited inquiry.

WHEAT, Essex and Kent red, old.	—s —s —s, fine —s —s 0s
Ditto ditto new.	62s 67s —s, fine 69s —s —s
Ditto ditto white old.	—s —s —s, fine —s —s —s
Ditto ditto new.	66s 75s —s, fine 76s —s —s
Foreign, red.	70s 78s —s, fine 79s 87s —s
Ditto white	75s 88s —s, fine 88s 92s —s
RYE	50s 52s, fine —s —s
BARLEY, grinding.	32s 34s, fine 34s 35s
Distilling	35s 36s, fine 36s 37s
Malting	38s 39s, fine 39s 40s
MALT	70s 73s, fine 73s 76s
PEAS, hog, new	37s 39s, fine —s —s
Maple	40s 42s, fine 43s —s
White	46s 48s, fine 48s 50s
Blue	47s 49s, fine 49s 51s
BEANS, pigeon.	51s 53s —s, new 50s 51s —s
Ticks for splitting	39s 42s —s, new 38s 39s —s
Harrow	48s 51s —s, new 43s 46s —s
OATS, English feed	21s 22s, fine 23s 24s
Poland or brew	25s 26s, fine 26s 27s
Scotch potato	30s 31s, fine 31s 33s
Ditto feed	26s 27s, fine 27s 28s
Irish potato.	25s 26s, fine 26s 27s
Ditto feed white.	21s 22s, fine 22s 23s
Ditto black.	22s 23s, fine 23s 24s
Foreign feed free	21s 22s, fine 22s 23s
Poland or brew	24s 25s, fine 25s 26s
FLOUR, Town made, per sack.	64s 67s 70*s, Seconds 60s 63s
Essex and Suffolk	53s 55s
Norfolk	50s 51s

* This is a nominal price.

HOPS.

BOROUGH MARKET, FRIDAY, FEB. 29.—Our market has been moderately active since our last report, with a fair demand for choice coloury samples at about the currency of last week; but the trade for inferior and brown samples continues very heavy, and for these descriptions much lower prices are submitted to.

Sussex Pockets, 56s. 80s. to 90s.; Weald of Kents, 60s. 84s. to 95s. per cwt.

HAY AND STRAW.

Clover, 1st cut per		Rowan	84s. to 100s.
load	120s. to 130s.	Straw, flail	30s. ,, 33s.
Ditto, 2nd cut	98s. ,, 115s.	Ditto, machine	28s. ,, 34s.
Meadow Hay	120s. ,, 130s.		

POTATO.

SOUTHWARK WATERSIDE, FEB. 25.—We have to report large arrivals coastwise, both from Yorkshire and Scotland, also free supplies by rail, which, with the dull state of trade, causes our market to rule heavy. Kent and Essex Regents, 85s. to 90s.; ditto Shaws, 85s. to 90s.; York Regents, 80s. to 95s.; Lincolnshire Regents, 70s. to 75s.; Wisbeach and Cambridge Regents, 70s. to 80s.; Bedford Regents, 90s. to 0s.; ditto Shaws, 85s. to 100s.; Norfolk Regents, 0s. to 0s.; ditto Whites, 0s. to 0s.; Scotch Regents (East Lothian), 75s. to 80s.; ditto (Red Mould), 85s. to 90s.; ditto (Perth and Fife), 70s. to 75s.; ditto (North Country), 0s. to 0s.; Dahlias and Rattlers, 0s. to 0s.; Blues, 0s. to 0s.; Orkney Reds (East Lothian), 65s. to 0s.; ditto ditto (Red Mould), 70s. to 0s.; Scotch Cups (Perth and Fife), 55s. to 60s.; ditto (North Country), 30s. to 40s.; Irish Kemps and Clusters, 50s. to 0s.; ditto White Rocks, 0s. to 0s.; ditto common Whites, 0s. to 0s. per ton.

POULTRY.

A short supply, and the beginning of the London season combine to alter our quotations, and to cause a rise in the value of poultry.

Large Fowls 6s. 0d. to 7s. 0d. each.	Teal	1s. 9d. to 2s. each.
Smaller do. 4s. 0d. to 4s. 6d. ,,	Snipes	2s. 3d. to 2s. 6d. ,,
Chickens. 3s. 9d. to 4s. 0d. ,,	Guinea Fowls..	3s. to 3s. 6d. ,,
Goslings..... 8s. 0d. to 9s. ,,	Pigeons	9d. to 10d. ,,
Ducklings 4s. 6d. to 5s. 3d. ,,	Rabbit....	1s. 5d. to 1s. 6d. ,,
Wild Ducks 2s. 3d. to 2s. 6d. ,,	Wild Ditto	10d. to 1s. ,,
Widgeon.. 1s. 6d. to 2s. 0d. ,,	Larks.....	2s. 6d. per doz.
Woodcock.... 5s. 0s. 5s. 6d. ,,		

PROVISIONS.

The following are the quotations;—

BUTTER.—Cwt.		Short middles.....		0s. to 0s.	
Cork.....	92s. to 110s.	HAMS.—Cwt.			
Limerick.....	95s. „ 104s.	Irish.....	84s. to 90s.		
Carlow	100s. „ 110s.	Westphalia	94s. „ 104s.		
Sligo	94s. „ 102s.	LARD.—Cwt.			
Carrick.....	108s. „ 112s.	Bladdered	74s. to 78s.		
Waterford	100s. „ 110s.	Kegs.....	66s. „ 70s.		
Holstein	108s. „ 116s.	P.M. beef (304lb.)	115s. „ 0s.		
Friesland	116s. „ 120s.	P.M. pork.....	97s. 6d. „ 0s.		
BACON.—Cwt.		CHEESE.—Cwt.			
Waterford sizeable	56s. to 61s.	English, NewCheshire,	70s. to 84s.		
Heavy	55s. „ 56s.	Cheddar.....	74s. „ 90s.		
Limerick sizeable ..	0s. „ 0s.	Gloucestershire, dble.	66s. „ 72s.		
Hambro'	56s. „ 58s.	Ditto, single	60s. „ 70s.		
Bale middles	56s. „ 58s.	Foreign—			
Tierce middles	0s. „ 0s.	Edam	58s. „ 62s.		
American—		Gouda	50s. „ 56s.		
Singed sides	56s. „ 58s.	Kanta	27s. „ 28s.		
Boneless middles ...	58s. „ 0s.	American	56s. „ 62s.		

MEAT.

	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.						
Beef.....	3	0	4	4	8	Veal.....	4	10	5	4	5	8	
Mutton	3	6	4	8	4	10	Pork.....	4	0	4	6	4	10

BREAD.

The price of Bread in the City and at the West End is still maintained at 9d. to 10d. the 4lb. loaf, but in other places the bakers are selling the best bread at 8½d. while in the cheap neighbourhoods they profess to sell at 8d.

WOOL.

Down Tegs	1s. 2s. to 1s. 3d.	Kent fleeces ..	1s. 1d. ,, 1s. 2d.
Ditto Tegs and		Leicester fleeces....	1s. ,, 1s. 1½d.
Ewes	1s. 1d. to 1s. 2d.	Long, heavy do.....	11d. to 1s.
Half-bred Hog-		Combing skins ..	10½d. to 1s. 1d.
gets	1s. 3d. to 1s. 3½d.	Flannel wool..	1s. 1d. to 1s. 2½d.
Do. Wethers	1s. to 1s. 2d.	Blanket wool	6d. to 11d.

TO CORRESPONDENTS.

** We request that no one will write to the departmental writers of THE COTTAGE GARDENER. It gives them unjustifiable trouble and expense. All communications should be addressed, "To the Editor of Cottage Gardener, 20, Paternoster Row, London."

CINERARIAS (W. B. Jeffries).—Your seedling No. 1, dead white, with the slightest edge of purple, good size, and petals imbricating and slightly notched, is a very good flower. Nos. 2 and 3 have no special merit.

EXCHANGE OF CUTTINGS.—"I should be very much obliged for any information regarding the art of striking cuttings of the variegated *Alyssum*. The few cuttings I had last autumn did not strike. I want, very much, a quantity of *Alyssum variegatum* cuttings. I am quite ready to pay any reasonable price for them, or to take them in exchange for cuttings of yellow *Calceolaria*; *Sultan* ditto; *Prince of Orange* ditto; a tall Lemon-coloured sort; *Verbena's Defiance*; ditto *Eclipse* and *Barlowii*; *Ninon de L'Enclos*, and some others; or cuttings of purple and white *Petunias*. Can any of your correspondents oblige me with *Alyssum* cuttings, or take these in exchange? I have sent many cuttings by post wrapped in damp moss in oil-silk covers. I have tried in vain to purchase plants of the *Alyssum*. No nurseryman keeps it within nine miles; and I am nine miles from railway or coach.—REV. F. W. ADEY, *The Cell, Markgate Street, near Dunstable, Herts.*"

LEAKING WOODEN TANK (I. M. G.).—When you allowed it to become dry it shrank, and the paint merely covered over the openings. We should have these caulked up with tow and white lead, and then have all the joints pitched over. A lining of zinc would do for a time; but its expansion by heat and contraction by cold soon cracks it. Roman cement would not answer.

FLORISTS' FLOWERS (J. S. M., *Bart.*).—These will be attended to.

CUCUMBERS (T. M.).—The sulphureous smoke from a stove would certainly kill your plants.

NAMES OF PEARS AND PLANT (H. Wright).—No. 1. Beurré de Rance. 2. Beurré de Rance. 3. *Mentha rotundifolia* var. *variegata*.

VARIEGATED PETUNIA (A Young Gardener).—We do not think that the seedlings would be variegated-leaved plants. The only way to be certain of keeping your novelty is by making a good stock of plants by cuttings, and letting your friends have it too, in case you should lose it. We do not remember having seen or heard of a variegated-leaved *Petunia*. We should keep the seedlings of *Scarlet Geranium* going on well till bedding-out time, and then plunge them in the bed, pots and all, which will promote their flowering. The seedling *Lobelia* will flower this year, if forwarded so as to have a good batch of strong plants to turn out by the end of May. Your *Fern* is one of the indigenous kinds, *Lastrea dilatata*.

GARDEN PLAN (H. A.).—The plan A. will never do for that piece of ground. You assume four true corner beds; but, instead of placing them in the four corners, you put four circles in the angles of four square corners, which is very poor, if not actual poverty. But the great Paxton has done the very same thing in eight corners at the Crystal Palace; so you have a precedent, and they show poverty of design. We never make plans, or recommend one plan more than another; we only give a free opinion of what is done, or is proposed to be done. Your plan B. is unobjectionable. When planted, it will look much better than on paper; the centre is unique, and the outside beds are very good; but if you put the vase in the centre you destroy your whole work. It is most astonishing, that nine-tenths of the public cannot see that a piece of ground, no matter its extent, is reduced to the eye, apparently, just to one-half its dimension; by attracting the eye to and fixing it on this centre by a glaring colour, or a principal object, such as a vase, statue, a sun-dial, a tree, or a house, or a May-pole. We once mistook the size of "our bed," at an hotel, by the glare of the figure in the centre of the counterpane, and had to ring the bell before we were convinced that the bed was large enough. But we never plant beds on paper.—B.

SOWING INDIAN SEEDS (Silas Firings).—The beginning of April is about the best time for you to sow *Deodar* and *Cypripedium torulosa* seeds, and the mode will be explained next week by Mr. Beaton.

HARDY FERNS UNDER TREES (Idem).—Almost all the hardy Ferns will do better under cultivation if they are partially shaded. All the common hardy Ferns you buy at the nurseries will answer your purpose, if you manage them properly till they are established. They are kept in pots, and may be planted any time between this and the middle of May. October is the best time, however.

SOWING SAPONARIA CALABRICA (J. W.).—If sown in March it will bloom this next summer. Of your plants—2. Is a species of *Swainsonia*, undeterminable, for want of flowers. 3. *Witsenia corymbosa*, an old, handsome, greenhouse plant, from the Cape. 4. Looks like *Calceolaria integrifolia*; but no one can say in the absence of flowers. The other we cannot make out from the specimen sent.

OLD PEAR-TREES (W. W.).—It is useless to head these down for grafting, decayed as they are. The work on the "Cucumber" you mention is out of print. The leaves of Peaches and Apricots are often injured by spring frosts.

WEEKLY CALENDAR.

MARCH 11—17, 1856.			WEATHER NEAR LONDON IN 1855.				Sun	Sun	Moon	Moon's	Clock	Day of
D	D		Barometer.	Thermo.	Wind.	Rain in	Rises.	Sets.	R. & S.	Age.	bf. Sun.	Year.
M	W					Inches.						
11	Tu	<i>Cercyon unipunctatum.</i>	29.673—29.374	37—29	W.	33	25 a 6	56 a 5	morn.	5	10 8	71
12	W	<i>Cercyon melanocephalum.</i>	29.018—28.886	46—31	S.W.	24	22	58	0 51	6	9 51	72
13	Th	<i>Cercyon simile.</i>	29.522—29.206	49—29	S.W.	—	20	59	2 9	7	9 35	73
14	F	<i>Cercyon laterale.</i>	29.634—29.594	45—31	S.	01	18	vi	3 18	8	9 18	74
15	S	<i>Cercyon terminatum.</i>	29.793—29.522	46—39	S.E.	21	15	3	4 10	9	9 1	75
16	Sun	PALM SUNDAY.	29.707—29.518	53—32	W.	—	13	4	4 49	10	8 43	76
17	M	<i>Cercyon sordidum.</i>	29.641—29.498	50—33	S.W.	09	11	6	5 15	11	8 26	77

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 50.9°, and 33.8°, respectively. The greatest heat, 67°, occurred on the 12th, in 1841; and the lowest cold, 13°, on the 13th, in 1845. During the period 116 days were fine, and on 80 rain fell.

CYSTOPTERIS ALPINA.



THIS very pretty Fern has been variously named. Linnæus and others called it *Polypodium regium*; some entitled it *Aspidium regium*; and by a third group of Botanists it is described under the title of *Cyathea regia*. In English it is called *Alpine Bladder-Fern*, *Laciniated Bladder-Fern*, and *Three-cleft Polypody*. The name of *Bladder-Fern* was bestowed upon the genus because the indusium or cover of each mass of spores is inflated like a bladder.

The main body of the *root* is short, tufted, and scaly, producing numerous scattered dark-coloured fibrous rootlets. The *fronds* issuing from the tufted top of the root are numerous, varying in height from three to even

twelve inches; they are bright green, their general outline spear-head-shaped, the leaflets so deeply lobed as to almost form leaflets; and these lobes are mostly three on each side-stalk of the leaflet. Each lobe is egg-shaped, blunt, and very finely cut, or laciniated at the edges. The segments into which the lobes are cut are long-oval-shaped and partly notched, but not long and narrow, nor wavy-edged like those of *Cystopteris angustata*, nor are their ribs zig-zagged as in that species. The leaflets are almost opposite to each other, yet are just sufficiently otherwise to justify their being described as alternate.

The unleaved part of the *stem* (stipe) of each frond is about one-third of its whole length; and is smooth except at the base, where a few brown pointed scales occur.

The *fructification* is near the edge of the lobe, and consists of very copious masses of little bladders, small, scattered, not crowded at any time, and pale brownish coloured. Whilst in a young state each mass is wrapped in a white, membranous, concave cover, ending in a tapering jagged point; thus nearly resembling *Cystopteris fragilis*, but the fructification is in smaller masses than those of that species, nor are the spores ever black as in that species, but are pale brown.

This is a Fern very rarely found in Great Britain; so rarely, indeed, that many Botanists have doubted, we think on insufficient grounds, its title to a place among our native plants.

Mr. Lhwyd first discovered it on Snowdon, as announced in the second edition of Ray's *Synopsis*, in 1696; Mr. Griffiths found it on Cwm Idwell in Wales; Mr. W. Christy found it on rocks at the dropping well of Knaresborough; Hooker states, on the authority of Mr. Muirhead, that it was found on Ben Lawers in Scotland; Mr. Shepherd, of Liverpool, sent specimens to Mr. Moore, which specimens, he stated, were "gathered in Derbyshire and Yorkshire, but without assigning more particular habitats." Mr. Foster found it at Low Layton in Essex, and announced his discovery in Symon's *Synopsis*, some time in the year 1793. It has been found at the same place by Mr. W. Pamplin in 1835, and by Mr. E. H. Bolton in 1840.

Sir J. E. Smith thus speaks of its discovery and history:—

"The lowland station of this Fern, close to a much-frequented road at Low Layton, where I have, in company with the late Mr. Forster, seen it covering great part of a brick wall, may be supposed analogous to its places of growth in France; but we seek in vain for any information on this

head either in Vaillant or Lamarek, nor is it evident that the latter ever found the plant. The wall at Layton has been repaired, and the Fern almost destroyed. On Snowdon it is said to be very scarce, though Mr. Wilson, with his usual bounty, has sent me an ample supply of specimens of various sizes. He describes it as "varying greatly in size and appearance, but always distinct from the *fragilis*." The cover, as that gentleman remarks, "is in both species, connected with the frond by its base only, at the lower side of the mass of capsules, that is, on the side next the base of the segment of the leaflet;" which agrees with my observations. This Fern is well compared by Bobart, in Morison, to the *Cicutaria* of old authors, our *Charophyllum sylvestre*, so common on banks in the spring. It is unquestionably distinct from every other British Fern, though the proper name and synonyms were not discovered till after its appearance in *Engl. Bot.*, where I fell into the same error with some foreign botanists. Linnæus once thought it a Swedish plant, but erroneously, nor had he an original or authentic specimen.

"The remarks of Dr. Richardson, inserted between brackets, by Dillenius, in the third edition of Ray's *Synopsis*, 126. n. 8. Ed. 3., certainly do not answer to the present species; as my late friend the Rev. Hugh Davies, an excellent observer, first pointed out to me.

"John Bauhin's synonym, which Ray quoted with doubt, appears, by the really excellent figure, to be unquestionably our plant. It must be either this or *Aspidium alpinum*, Willd. n. 139., which is likewise a *Cystea*, figured in *Jac. Ic. Rar. t. 642*, and in *Segu. Veron. Suppl. t. 1. f. 3*. But neither the plant itself, not either of these representations, suits the wooden cut of Bauhin, which agrees far better with *C. regia*, particularly in the shape of the leaflets. Haller, very unsuitably I think, refers it to *Pteris crispa*; which circumstance, and the singular jumble of synonyms under his n. 1707, *Cystea fragilis*, induces a suspicion that he had not accurately observed these alpine ferns, and especially that he had never seen Vaillant's *Filicula regia* at all."

On the culture of this, and other species of the genus, we have been obliged with the following notes from Mr. W. Reeve, who has very successfully cultivated Ferns:—

"I have had several species of *Cystopteris* in my possession, but have not had all the species, but such as I have tried, I have always found to prefer and thrive best in well-drained situations. The only instance that I have of their cultivation, out-of-doors, was upon some rockwork which I formed at the north end of our conservatory, where there was a piece of brickwork (which did not look very sightly) about two-and-a-half or three feet high, and I formed this rockwork to hide it, but you may imagine that the more elevated part of it must have been very much drained, when I had only about eighteen inches for the base. It was upon this piece of work that I placed (among other small, young Ferns) a plant of each of the *Cystopteris* that I had in my possession. They were three in number, *Fragilis*, *Dickieana*, and *Alpina*.

"For cultivation in pots, I used, for compost, two parts sandy loam, one of leaf-mould, and one of very finely-broken sandstone; or, in default of this, old mortar broken fine, with a little silver-sand added, and good drainage. Great points in potting these small species of Fern are the state of the compost, and the way it is mixed and used. It should be of a nice dampness. In mixing, it should not be rubbed too intimately together, but should be handled carelessly, as it were, and the plants potted firmly, in most cases, and if used in this state, and the plants are placed in a rather confined temperature, very little water must be given until

they begin to emit new roots, which will not be long first, if the plant is in a healthy state; and even if it is not in sound health, the withholding of the water-pot from it will do it more good than the application of it. The moisture in the compost will be sufficient for the roots until fresh ones are formed, and the moist atmosphere will help to supply the fronds. When planted in the rockwork a similar compost may be used.

"Each of the species would make a nice plant for a Wardian case, I should think. I have grown *Dickieana* under a bell-glass for a considerable time, and I have a specimen of *Fragilis* by me that I grew in a close temperature, but *Dickieana* and *Alpina* objected to heat more than *Fragilis*."

CLAPTON NURSERY.

YOUNG gardeners, after they pass their apprenticeship, ought to spend some time in a good nursery, on purpose to learn the art and mystery of propagation; and amateurs, who spend freely in buying plants, ought to insist on it, as a privilege, to be permitted to visit the propagating houses of the nurseries they patronize, once a year, at least, where a new world would open to their wondering eyes.

It is not fair to bother a man about anything, much less about his private concerns and the secrets of his calling, unless you have a good claim upon him; and the best claim on his particular calling is to be "a good customer." A good customer, in a nursery, is one who spends his money freely on plants and seeds, and he alone is entitled to the privilege of seeing through the propagating houses occasionally. On the other hand, an old gardener, like me, dreads a nursery more than the war. Once there, through necessity, he fears the competition with younger men will bear down his prospects of obtaining a good situation through the influence of that nursery, and knowing that bad situations are always in the market, he is placed between two stools. When an order for a gardener for one of such places "comes in," if he refuses to take it he may offend his best friend, and if he engages, he knows it is not for "a certainty." A good young gardener will not go to a place which has a "bad name;" but an old one must, under such circumstances; hence his dread of a nursery.

I wrought in four different nurseries before I was a gardener on my own account, and from thus learning so much of the craft, I never go into a nursery now, but they make me an offer to see everything, propagation and all. On the present occasion, I had to spend a good deal of time in this nursery, to see the arrangements completed for sending out so many plants to the Warden of Christ's College in Van Dieman's Land, therefore I had more opportunities to see all the secrets and manœuvres of the trade than falls usually in a man's way, and if I cannot answer all the questions of the last six months on this head, and anticipate others on all kinds of propagation for the next six months to come, I ought to give up writing on gardening altogether. I have some of the most wonderful things I ever heard of to relate in this story, but I shall leave the reader to judge which is the most so out of three things.

It has often been heard, no doubt, how very difficult it is to raise seedlings of the *Lilium giganteum* of India, and that no gardener in this country could do so for the space of full twenty years, and that at last it had to be introduced by roots. Lord Hardinge, when he was Governor-General of India, was the last who

sent over seeds of this Lily to be tried for the twentieth time. I had some of these seeds three years, in a pot in the Calcutta house at Shrubland Park, but they would not grow, and I could not make them start anyhow, yet the seeds were quite fresh all that time though it had no more body than a Carrot seed, if so much. Now, Mr. Low has about two thousand of this Lily for every parish in the three kingdoms, from seeds—two thousand seedlings, recollect, for every parish. Multiply that by the number of parishes, and see how many thousands they will all come to. The secret for raising this Lily from seeds has been in a nutshell all this time. It will not come in heat at all, but sow it as thick as Mustard and Cress, at the same time as Wheat, in October, and cover the bed well from the frost, and in the spring the seedlings will come as “thick as grass,” but only one-third of the number, or thereabouts; in twelve months another third of them come, and the last of them not till the third spring after sowing. At the Clapton Nursery they placed a fine, large, light frame in an out-of-the-way place, and made a suitable bed nine or ten inches deep, as long and as wide as the frame, sowed the seeds as I have just said, last October, covered the frame with glass, five sashes, and when the frost appeared the whole was covered as we would a cold pit for bedding plants, and so left till the first sprouting, which was just pushing the last time I saw them.

The second “sight” was about as much shelf-room as would extend the length of the Crystal Palace in single file, occupied with seeds of *Araucaria imbricata*, planted half their length, and as close as they could stand, in pots filled with strong loam, together with twenty-nine lights of a cold pit entirely filled with these seeds, but not in pots. A bed was made for them on purpose, like as for the seeds of *Lilium giganteum*; they were planted across the pit in rows half-an-inch apart, and one-eighth-of-an-inch from seed to seed in the rows. The soil is a stiffish, yellow loam, and the small end of the seed was pushed into this, till one-half of the length of the seed was buried, and no more. To look down the whole space, and see the bristling appearance of so many thousands of these seeds was enough to make a fellow wish he was young again, for, after all, we are just as so many children, in gardening, as compared to what all this will bring young gardeners to, some day or other. Then, as children, let us learn that the small end of all seeds of the Pinus tribes ought to be lowermost. The roots come from that end, and the stem from the thick end. All these tribes of seeds do better in yellow loam kept rather dry, and the seed standing on end, and not much covered. Indeed, I believe that all seeds of Pinus and of their relatives do better standing on the small end, with the thickest end just level with the soil. From the middle of March to the end of May is the best time to sow the Pinus seeds from India, the *Deodara*, and all the tribe. We shall have abundance from the Crimea if peace is made. Late in the spring is the best time for them also, and for all those from the Western hemisphere.

The third wonder consisted of so many thousands of seedlings, for the first time in England, I believe, of the lovely *Lapageria rosea*, or Climbing Lily, or the *Copieua* of the Spanish Americans of Valparaiso, who esteem it as rare presents from the south, from about Conception. Long wreaths of it, in bloom, may be cut and kept for months hanging about the rooms, as the Chinese hang the flowering shoots of the *Renanthera coccinea*. We shall have *Lapagerias* cheap enough by-and-by. I say *Lapagerias*, because I think they run into many shades of colour, like their more northern rivals, the splendid *Bomarias*, of which we know yet but of the existence. There was a pure white, or nearly a pure white, *Lapageria*, flowered at Paris last autumn; and I should not be surprised to hear that every shade,

from white to crimson, appears among this vast number of seedlings at Clapton; and if they were mine, I should not sell one of them till I “proved” them; but Mr. Low sells everything he introduces, on principle, as soon as it is fit for the market.

Our friends in Suffolk will be glad to hear that Mr. Thomas Bridges, from Bury St. Edmunds, is still alive in the far West, and that Mr. Low had sent him, last summer, a first-rate gardener, and that no sooner did he, the gardener, arrive in Chili, than master and man took to the mountains in search of diggings in the plant way.

Sorry I am to see the ebb-tide in the affairs of the Horticultural Society, and I cannot help seeing, that if our funds had been expended in encouraging others to do what we attempted to do ourselves, the progress of gardening, and new discoveries of plants, would have been greater and better than they have yet been; but let us hope that Mr. Bridges and his new gardener will find out that route on which Matthews discovered so many beautiful plants so many years since, and that his *Cavendishia nobilis* will soon be as plentiful in the trade as the *Pampas Grass*, the *Araucarias*, the *Lapagerias*, and the great *Indian Lily*, all of which may now be had for as many shillings as they would cost of pounds sterling a few years since.

Another gratifying item of news is that the real habitat of the New Holland Pitcher Plant, *Cephalotus follicularis*, has been discovered at last, by one of our best British gardeners, not later than last summer, and this discovery will change our system of growing it, and render its cultivation more easy and certain. It is not a native of bogs, or of a bog near the coast, as was first represented. The plants which were found in the bog had only strayed there by some accident, if, indeed, any of it had ever been discovered in such a locality. The gardener who sent home immense numbers of this charming little Pitcher Plant to Mr. Low, found it profusely covering the face of a steep bank, at the roots and under the branches of *Epacris grandiflora*, with common *Acacias* and *Gum Trees*, in sheer spongy peat, such as that in which they grow Camellias in Germany. I have seen lumps of that peat which he sent home with the plants, and Mr. Low now treats his new importation like so many *Stylidiums*. Anybody who can grow those pretty *Stylidiums* from Australia may venture on a Pitcher Plant with equal confidence. Nothing could look more promising than hundreds of these pretty little gems looked, under this treatment, in a house which was kept just a little closer than a greenhouse, and no more. A similar treatment seems to suit the North American Pitcher Plants, the *Sarracenias*, of which I saw large numbers here, including *flava*, *rubra*, *variolaris*, as well as the more common *purpurea*. I also saw samples of the very peat in which they flourish in America. It is not so fat and sponge-like as that for the *Cephalotus*, and from its black, loose appearance, I should say that we give too much water to this class of North American plants.

One of the days on which I called, Messrs. Low were unpacking a large consignment from Montreal, consisting of Ferns, Lilies, *Sarracenias*, and many others which are much in demand for trade orders all over Europe, and nothing is more convincing to a practical eye than to see the very soil in which a plant grows naturally. Many kinds of low plants, Ferns, and herbaceous plants, natives of a much colder place than England, must be kept from the frost in pits and greenhouses with us, to secure them that long rest and perfect freedom from the variations of climate to which they are naturally accustomed under the deep snows of the Canadas for so many months of the year; but is it not equally essential that during a great part of this rest time such plants should be in the dark? I know that many of our best plants never do so well

as in the autumn, when the day and night are more equal, as they have it in certain latitudes all the year round. Think seriously on that point before you settle which kind of house gives the best light; but know, to a certainty, that many of your plants receive already double the light with us that is natural to them at home.

The next novelty was a new set of *Bhotan Rhododendrons*, nine kinds, and all of them different from those sent home from Sikkin by Dr. Hooker, and from Sikkin and Bhotan by some one else, having been gathered six hundred feet higher up in the mountains than the latter. They are now "pricked off" in store pots by thousands, and seem to care little for the cold, for the soil in the pots was frozen through and through this winter.

After these, I saw fifty seedling pots of *Picea grandis*, from Schamyl's rugged glens on the Caucasus. Who will now put up with grafted plants of this, the finest of our Pinuses, and hitherto very scarce? *P. amabile*, *Douglasii*, and *Nobile*, were the best by Douglas; and *Benthamia* is one of Hartweg's very best Pines; for he told me, himself, that a wood of this kind was the finest thing he had seen in all his travels; but I was not aware, until I saw it at this nursery, that *Pinus Benthamia* is so plentiful and cheap, and fit to be planted out at once on the slopes above Balmoral, that probably Prince Albert will send down a thousand or two of them for trial. Pinuses and Standard Rhododendrons are known to be Prince Albert's most favourite plants.

Thuja gigantea is the most singular tree in this establishment; it is not unlike *Wellingtonia gigantea*, only it has not so much of a Cypress look. Like the *Wellingtonia*, it is a Californian tree of great size and beauty, attaining the height of one-hundred-and-eighty feet, the lower eighty feet of which is as bare as a May-pole; but, with us, we shall not see it thus in our day.

Another remarkable Conifer, from Asia Minor, is *Thuopsis borealis*, a fine, graceful-looking tree, and said to be very hardy. The Wardian Case has brought over a large batch of seedlings of *Araucaria Cookii* from the other side of the world, and there they are as if they were sown on the spot.

I must tell the balm to the vanity of an old man which met me on the threshold of this nursery. As soon as the lists of Pompones and Chrysanthemums, for the last season, appeared in THE COTTAGE GARDENER, the stock of them here was revised at once, and propagation began, or, rather, ended, the last year with them in earnest, and they say, not before it was time, as already orders for them, from country nurseries, are more numerous than they ever were later in the season; and I hear, that Mr. Salter, of Hammersmith, is in the same stress of weather, for he, too, was forced to begin to strike them two months sooner than was his wont, and they, both of them, blame me for this, as I said that the spring was the best time to buy them. I care not to be blamed in this matter. I hold to my opinion, that the spring is the right time to buy all kinds of Chrysanthemums; and if the nurseries are taken by surprise, let them smart for it by all means; but let us not want or lose a season next year. We shall then be striking them with Waltonian Cases of our own make.

Mr. Walton's Case is even better this year than on the first trial, for Mr. Walton told me so; but I rather suspect that Mrs. Walton, who is head-gardener, is now more up to the way of managing it. The alterations which were suggested on the first Case could not be tested till the cutting season came round; but they are now nearly quite complete, all but the expense of heating, which time alone can solve, and the drawings will be in the hands of the engraver before this is in the hands of those to whom this new contrivance will be a source of much pleasure and interest. Other ways

and forms have been suggested, and our advice is asked of them. To all such we would reply, or, rather, I would say, in my own proper person, with due respect, that I think of the three plans for Waltonian imitations, just as I do of the Peace Conference, which began the 25th day of February, at Paris.

But I lost sight of Clapton Nursery when I was going to write about the secrets of propagation, which are few and simple; sweet air, moist atmosphere, gloaming light, and from 75° to 85° of close heat, patience, skill, and judgment being all the requisites, providing you have stock plants to take cuttings from. They were noted for expert propagators at Clapton, when I first came to London, in 1829, so they cannot be said to have taken their learning from THE COTTAGE GARDENER; but having seen the one, and read the other, if I did not know better, I could be sworn that they learned all their moves out of one book. I never saw practice square so much with writing before; and as for me to attempt to give such details as are plain on the face of them, in every part of this nursery, would be merely to write over the same words from our own pages, even in the few simple details in which our men differ. They differ as much at Clapton. Take one instance. Very rare things are *Lepageria* seedlings; therefore, to meet the trade, every one of many hundreds is put singly into a small pot, while *Erica Massonii* and its long strain, with *Elegans* and *Cavendishii* and their strains, and all the hardiest-wooded Heaths, which are the worst of all to nurse, and ought to be in single pots; but no, Heaths are common plants, the better luck, and out of fifty thousand No. 60-pots, not one is seen with only a single plant in it, all of them have four plants in each, and so with all other families and single kinds. Some people are so rash and hasty as to pot off as soon as the cuttings are rooted—a daft plan! First see if you want more cuttings of that kind, and if you do, the top of a cutting newly rooted makes the best cutting in the world, and some cuttings cannot be rooted unless the plant is half killed first with damp, close heat, which will force the wiriest wood to grow as soft as that of the Verbena, and in that condition is made to root almost as easy as Fuchsias.

The tank system, by getting rid of all the bother and bad smells of a hotbed, allows of propagation to go on all the year round in these large concerns. They never think of which is the best time to put in such and such kinds of cuttings; their only question is, when are the hard-wooded soft enough for cuttings? and when is the soft-wooded of sufficient firmness for cuttings? More of these things some other day.

D. BEATON.

WHO ARE UNDER-GARDENERS?—Some light is thrown upon the answer to be returned to this query, from what took place recently in the House of Commons. On March 3rd, in reply to a question put by Col. Harecourt, the *Chancellor of the Exchequer* stated, that "he understood that the construction which had been adopted by the Revenue Department was this—that persons who were regularly employed for a whole year, and who were under the direction of a head-gardener, should be regarded as under-gardeners, but that persons who were only casually employed, and who were engaged in such duties as might be performed by common labourers; as, for instance, in mowing grass, or in keeping gravel walks in order, were not to be deemed under-gardeners."—*Times*, March 4th.

A BUNDLE OF INQUIRIES ABOUT GREEN-HOUSES, VINERIES, AND OTHER GLAZED STRUCTURES.

(Continued from page 409.)

5. *FLUES versus HOT-WATER*, AS TO EXPENSE IN SMALL STRUCTURES.—“F. S. V. inquires the probable annual expense for fuel for heating a greenhouse twenty feet by twelve, by water and flues, respectively.” My statistics are not sufficiently precise to determine, and much depends on the kind of weather, and the price and kind of fuel. To keep such a house safe in winter, about 30s. might be considered as a general average, when there was not much severe weather. I have known such a house not cost above half that sum, in some seasons, and considerably more in others. For such small houses, I consider heating by flues much the cheapest, as, provided the damper is properly used, but little heat goes up the chimney. I have a lean-to about that size, the floor being paved with tiles. Beneath these tiles I have a small flue that comes about fourteen feet from the furnace, and returns to the chimney, because I could not cover the other five feet, or so, owing to large flag-stones. The flue is about five inches deep, and nearly the same in width; the bottom is slate, the top is slate, and then the paving tile. It is placed in the pathway, and you see no means of heating at all. I do not suppose it has cost 10s. a-year to keep the frost at bay and the plants comfortable.

6. *VINERY, WITH PEACHES ON THE BACK WALL, AND PEACHES IN POTS IN CENTRE OF HOUSE*.—“A Three-years' Subscriber commenced forcing at 45°, and will be obliged by the temperature monthly, so as to secure good crops of both.” I have done so myself, and with a fair share of success. At one time, when the Vines were five or six feet apart, I did very well, as the openings admitted a good portion of light. After all, however, for extra fine fruit of either, there must be something like a compromise,—as when the Peaches approach maturity, and ought to have abundance of dry air, and comparative coolness, to give them extra flavour, the Grapes will be at their second swelling, and require a higher temperature and a moister atmosphere. Even with the latter treatment good-looking Peaches may be obtained, but they will not be so finely flavoured. If much shaded, the flavour will also be flat. The following may be considered the essentials to success:—

1. Have the Vines from four to six (or more) feet apart. 2. Do not commence early; say from January to March, and at 45°. I mean this for beginners. The initiated will manage much earlier. 3. Until the Peaches are fairly set, though the temperature is gradually raised, let it not be higher at night than from 50° to 55°, with a rise of from 10° to 15° from sunshine. The Vines by this time will be nicely broken, but not grown much. 4. After this, as the Vines push, the temperature should be gradually raised to 60° at night, which will also swell the Peaches nicely; but, except for a short time, when the Vines are in bloom, when the temperature should range at night from 65° to 70°, the heat should not be higher at night than 60°, until the Peaches are gathered. A rise of 10° to 15°, and even 20°, at mid-day from bright sun, will injure neither. 5. For such a house, though I have done Muscats well, yet, hardy Vines, as Hamburgs, Muscadines, West's St. Peter's, Barbarossa and the New Golden Hamburg would suit best. In other respects, give the usual treatment.

7. *TEMPERATURE FOR VINES*.—“A New Beginner” will see what is stated above. Commence at 45°, syringing the Vines several times a day in bright weather, and letting the house rise 10° to 15° from sunshine. Increase the temperature, in three weeks, or a month, to 60°, but beyond from 55° to 60° do not go, until the Vines have pushed one or two inches; then gradually

increase to 65°, and when they begin to bloom mount up to 70°; and when set, retreat again to 65°. Let the day temperature from sun exceed that of the night by 10° to 15°. After the Vines are in bloom (unless the water is very pure, when, after the fruit is set, the leaves might be syringed in an afternoon), supply the necessary atmospheric moisture, by placing evaporating pans on the heating medium, and syringe the floor and shelves of the house in hot days. You have pruned to two buds, and ask which should be left for wood? I should say the weakest, or the one that does not show fruit. I presume you mean one to fruit, and the other to grow and fruit next year. If the Vine is in good heart, there is no necessity for this on the spur system, as it makes the house so dense with foliage, as the shoot that bears this year, if shortened a joint before the fruit, laterals allowed to push, and also first shortened, and then removed as the fruit approaches maturity,—that same shoot, when cut back to a bud, will produce such another fruitful shoot next year. Most likely, your border outside is wet enough already; it may have some drainings from the dunghill in dry weather in summer. If the border inside is dry, apply some now. Unless you can heat it,—apply it before you commence forcing.

8. *CHEAP HEATING, BY USING EARTHENWARE PIPES AS A FLUE, ETC.*—“C. E. L.” playfully reminds us of our complaint of so many queries coming at one time from one person, but he may rest assured that a bark and a bite are very different things. “C. E. L.” wishes to heat a lean-to Orchard-house, twenty-four feet by twelve, and nicely arranged; and thinks that a row of these large pipes would be sufficient; which I do also; but he is “afraid the trouble of keeping them clean will be great.” Not long after seeing Messrs. Weeks' improved system of heating, I saw similar earthenware pipes used by my friends Messrs. Caie and Keane, of Kensington. The large barn of a house, thus heated, I alluded to the other week, is a huge span-house, glass all round, at Mr. Fell's nursery, at Hitchin. There were two improvements suggested themselves, one of which will meet our correspondent's objection. There is a danger of the pipes next the furnace cracking; and it would be as well to have a yard of brick-flue there. The other is, that every fifteen feet, or so, the pipes should have their ends in a small, square box, formed of brick on edge, tiles, &c., and covered with a tile; the lifting of which would enable the broom to be freely introduced without interfering with the joints. This, however, would not often be required, as the draught in such a pipe would be great. The joints were filled with mortar. “C. E. L.” has a weightier objection. “The whole structure is seen from my dining-room window; I do not wish to disfigure it by a furnace and chimney; and a wide stream runs at the back of the wall;” and he proposes “earthen pipes, three inches in diameter, with perfect joints, connected with a small copper boiler, to be heated with gas;” and asks for hints. The copper would do; see previous remarks; metal tubes, a yard in length, and one-and-a-half to two inches in diameter, might connect the boiler with the earthenware-pipes. The pipes will, no doubt, do; will cost about threepence per foot glazed, and a half-penny or so less unglazed. The joints might be filled with Roman cement, or with rope-yarn and red lead. Before doing so, compute the expense, and see what the difference would be between such pipes and galvanised iron of the same size. For gas-heating, I would prefer the latter, as being thin and quickly heated. Mr. Fell has had such galvanised sheet iron in use for hot-water for many years. I once managed, to the satisfaction of a gentleman, a house placed also in sight of the mansion, with a common furnace and flue passing once through the house. At the end next the mansion, a furnace was sunk, covered by a trap-door, and completely concealed by a group of evergreens. At the other end, the chimney

consisted of three two-foot earthenware-pipes, and that close to the wall and concealed. Coke was used for fuel, and the lighting being done at night and morning, it was rare, indeed, ever to observe a particle of smoke from the window.

9. HEATING ONE HOUSE FROM ANOTHER.—“C. H.” had a lean-to greenhouse Vinery, forty feet long, and heated by two four-inch pipes along the front, the lowest being eighteen inches from the floor. It was desirable to have a place for greenhouse plants alone, and six feet were taken off the Vinery, and six feet added for that purpose; a brick-wall below, and a glass division above, with door separating the one from the other. Before building the wall the pipes were cut off to the length of the Vinery proper, “and now the frost comes in the greenhouse. What am I to do? Get a portable stove, or what?” Why not continue the pipes, and separate the two divisions by stop-cocks? Before doing this, as the place is so small, have a triangular piece at the apex of the division above the door, made to open on hinges. In the wall, or lower part of your division, which is a brick-wall, cut out a hole, a foot square, or so, opposite to but lower in level than the pipes in the Vinery. When both these are open, I am pretty sure the heat of one house will circulate through the other. In extreme cases, the dividing door might also be partly open.

10. SETTING OF A BOILER.—“My boiler and the flow-and-return-pipe are nearly all exposed in an open shed. Do not I thus lose heat by the fire going too soon up the chimney, and the outside of the boiler being exposed?” Undoubtedly. Get a bricklayer who can set a wash-house boiler properly, and he will find means to make the heat and smoke come round the outside of the boiler before it gets into the chimney.

11. COTTAGE STOVE *versus* FLUES.—“A Constant Reader” has tried a cottage stove in a pit for Cucumbers, but the place gets filled with smoke and blacks; and asks advice as to a flue for keeping up a temperature of 70°. I know but little of what is meant by a cottage stove, so many are dignified by that name. Have a flue by all means. In the pit, in the centre, you might have tan, and the flue round. However used, you must secure moist heat by evaporation. Cucumbers growing in such circumstances was largely treated on lately.

12. PIPING AND BOILER NECESSARY FOR PINE PIT.—This, belonging to “Argentum,” is thirty-two feet long, by seven feet wide, in four divisions,—plants, some in pots, and some planted out, heated by dung-linings, and two four-inch earthenware pipes, one passing along the side of the pit above, for top-heat; and then returning in a chamber beneath the bed for bottom-heat, connected with a waterpot-shaped four-gallon boiler, which answers well; but the size of boiler, and *quantity* of pipes, are wanted, to heat such a pit sufficiently without linings.” The pipes would require to be doubled, two above and two below; and as the earthenware pipe in the chamber has sustained the pressure, I do not see why two would not be as safe as one. The boiler ought to have about four square feet exposed to the fire, and very likely the present one will be large enough, and might, at least, be fairly tried. The quantity of the water contained is but little in comparison of the surface exposed. As there is a short-hipped back roof, it would be as well to have the top pipes one on each side. I consider that, unless in severe weather, these two would be sufficient for top-heat; but to swell Pines in severe weather, in winter, a third might be necessary. The simplest plan would be, just as is now done, take the flue-pipes for top-heat, and return them beneath the bed for bottom-heat. You must thus heat all the pit at once. If wanted to keep the divisions separate, the top and bottom-heat must be distinct; and these again divided, as mentioned the other week.

R. FISH.

SALE OF THE PUBLICATIONS OF THE HORTICULTURAL SOCIETY.—This took place on the 7th of February at the auction rooms of Mr. Hodgson. A set of the Society's *Transactions*, ten vols, sold for £1 11s. A set of the Society's *Journal* sold for £1 11s. The Society's *Catalogue of Fruits*, without the supplement, sold for 2s. per copy, and *with the supplement*, for 3s. and 2s. 2d. per copy. The great bulk of this property, however, was in quires, and in this form about seven tons of the *Transactions* sold for 18s. 9d. per ewt. The *Copper Plates* sold at 1s. 2d. per lb.; and the *Wood-blocks* of the *Journal* for £21.

CYPRIPEDIUMS, OR LADIES' SLIPPER PLANTS.

(Continued from page 218.)

THE culture of the hardy varieties of this interesting tribe of plants (a list of which I gave at the above page) is, as I remarked before, rather difficult; but, like all other difficulties (not impossibilities), it may, by indomitable perseverance and due precaution, be overcome. Now, the first point is, to procure the plants, or as many of them as possible. If any curious amateur, or gardener—I mean, by curious, one who is fond of curious and not-easily-managed plants—is desirous to try his skill on the hardy section of *Cypripediums*, he must apply to such nurserymen as are likely to possess them; or such nurserymen should advertise their stock of them in *THE COTTAGE GARDENER*. I am certain they—the advertisers—would obtain orders if they did; for I know there are more readers of that description who subscribe to this work than to any other gardening periodical.

I will suppose, then, that, by one way or other, the amateur, or gardener, has obtained a goodly lot of the species. The next thing will be, what the cultivator requires to grow them with. In the first place, he will require a one-light or a two-light frame, according to the number of plants; the next will be, the proper soil and the right-sized pots. Having all these, he will then need instructions how to apply them, and the general management.

1. SOIL.—The English species is found in low thickets, growing in light loam, very much mixed with the soil formed by the annual fall and decay of the leaf. The North American species, in their wild state, grow in a soil formed entirely of decayed vegetable mould, mixed with the fibrous roots of ferns and shrubs, and also some sand. This soil is thoroughly decomposed, so that it comes under our term peat. Hence, cultivators in our country have tried and been successful in growing them in the following compost, which approaches as near to their natural soil as possible.

COMPOST.—Fibrous peat, taken from a dry moor, in which there is a quantity of the roots of ferns and heaths. Fibrous loam, taken about three inches deep, from an upland pasture, with the grass on it. Leaf-mould, formed with the fallen leaves in autumn; chiefly Oak and Beech leaves. These should be laid together in a heap, not too thick, and frequently turned, for twelve months, by which time they will be fit for use. These three sorts of soil will form an excellent compost for many kinds of plants. They should be mixed together, in equal parts, and a liberal addition of sand added, sufficient to give the compost a sandy character. In this compost the *Cypripediums* will luxuriate strong, and flower well, when of sufficient strength.

2. POTTING.—This operation should be performed in spring, just when the buds are breaking. All the hardy species are deciduous; that is, the stems and leaves die

down in the autumn, and the plants remain dormant through the winter. This is the reason why all such plants should be potted in spring, in order that root-action and top-action should go on simultaneously, and the fresh soil, with all its nutritive elements intact, and unwashed away by frequent waterings, be placed ready for the fresh roots to strike into, and take up the greatest quantity of stimulating food, just at the time the plants require the greatest amount of encouragement to grow healthily and vigorously. Some days previously to the actual performance of potting, the portion of the compost required on that occasion should be brought under cover, in a temperate shed, or room, to become partially dry and warm. Also, a considerable quantity of broken pots should be broken up into three sizes; the first, large ones, to cover the holes at the bottom of the pots; the second, rather smaller; and the last, as small as the large narrow Pica. Then the pots, while the compost is airing, may be looked out. If new from the pottery, they should be soaked in cold water for twelve hours, and then placed to dry in the shed; if old ones, they should be put into a tub of water, soaked a few hours, and then washed and scrubbed quite clean, and set to dry, a couple of days previously to the potting day. Lastly, if it can be had, a quantity of charcoal should be procured, and broken into pieces about the size of pigeons' eggs. These are the materials necessary to be got in readiness for the operation of potting. A day being fixed upon, the plants should be brought into the potting place, and one taken on the bench. Turn the ball carefully out of the pot; pick out all the old drainage, and shake off *all the old soil*. This is important; for, generally speaking, the old soil has lost all its nutritive powers, and is an exhausted mass. The roots of the *Cypripediums* are not fibrous, and therefore the soil readily separates from them; then carefully examine the roots, and cut away all those that are dead. Some will not be dead their entire length; these should have the dead part only cut off. Then prepare a pot of the proper size to contain the roots, without cramping or bending, by draining it artistically; that is, lay one or two of the largest-sized crocks at the bottom, over the hole; upon them lay a thin covering of the second size, and, finally, the third layer of the third-sized broken pots. Mix a few pieces of charcoal amongst the compost, and put sufficient of the compost in the pot, upon the drainage, to raise the crown of the plant just level with the rim; then put the plant in the pot, holding it with one hand, and with the other fill in the compost amongst the roots; being careful not to bruise or break them, nor yet to rub off the buds on the crown of the plant. Proceed so till the pot is full, then press it down gently, but not hard; for these plants love an open medium for their roots to run amongst. Then give the pot a smart stroke or two on the bench, and the operation will be so well done as to afford a reasonable expectation that the plant, with proper after-management, will flourish in its new pot and soil. Give the remainder the same treatment, and they are ready for the next section—Position.

T. APPLEBY.

(To be continued.)

NOTES FROM PARIS.

WE have had such warm weather lately that there has been an unusually good supply of flowers. At present, Camellias, Azaleas, Hyacinths, Spring Heaths, Primroses, Cinerarias, and Roses, are somewhat plentiful. Of Violets, in particular, there is a wonderful display, done up, too, like railway literature, pretty easily got through, and very cheap. The Hyacinths are, for the most part, fair samples of the early forcing sorts. There are, also, some neat plants of the common Azaleas, a few quickly-flowered Rhododendrons,

two or three orchids, such as *Phaius grandifolius*, plenty of forced Lilac, *Van Thol* Tulips, with Wallflower, purple Stocks, and Pansies.

Bouquets are, of course, composed chiefly of Camellias; the best samples I have seen are formed almost entirely of this favourite flower.

Thus:—Centre, a large white Camellia.

1st circle, Variegated ditto.

2nd do. Lilac (white) raised.

3rd do. Red Camellias.

4th do. Blue Violets.

Roses are placed at certain distances between the circles.

In another style, the circles of Camellias are not all of one colour, but alternating. Heliotropes and Heaths are also used with the Roses at certain distances between the circles. This style of bouquet is very rich and effective, but must be somewhat large to be well done.

I do not recollect if I mentioned, when noticing this subject more particularly, that in making bouquets the *fleuristes* here use a small wire frame in which the flowers are placed or arranged so that their effect may be seen before they are tied together. This is not frequently used; but it is worth recommending for the use of beginners.

The French way of making bouquets is, at the present season, adroitly turned to advantage by the flower-girls of the Boulevards, who purchase Camellia flower-heads for the merest trifle, trim the petals a little, give them artificial stalks, surround them with Violets and Lilac, and then sell them at six times their value.

The principal flower depôts in Paris are in the *Palaise Royal* and the *Passage du Joffroy*, also the *Passage de l'Opera*. All the *fleuristes* sell fancy vases, pots, baskets, and flower-stands. My last sketch, it is right to say, was made from a model furnished me by M. Baron, 10, *Passage de l'Opera*.

M. Couturier, of the *Boulevards des Italiens*, has at present several samples of forced Strawberries, which are a decided improvement on what I mentioned in a former dispatch; but, of course, they make a better show than they would make a dessert; and most probably they will never be eaten. Yet there always are some people who seek to create a sensation by being able to announce that in February they have eaten ripe Strawberries for their dessert.

I find that the garden in the *Place du Carrousel* has been divided, and there are now in reality two gardens, each about forty yards long, and neatly laid out.

It would be interesting to look over the fashions in ornamentation which have prevailed, from time to time, during the last century or so. At present, the popular taste is decidedly in favour of fruits and flowers with the artists and decorators of every shade. The new buildings of the *Louvre*, and even private houses, are set off with rich carvings, such as might almost warrant the designation of a "Horticultural order" of architecture. The buildings of the *Louvre*, especially, are literally covered with embellishments of this kind. In old times, carvers in wood and stone, as well as designers, such as they were in Catholic countries, were engrossed with the delineation of Saints, or the illustration of remarkable incidents in ecclesiastical history. The same subjects are, more or less, kept up at the present day, though greatly improved in form and expression; but now, Nature is the real school of every artist who tries to excel. Flowers and fruit, branches with birds' nests, even the mosses and lichens which grow on stones and wood—all these are carefully studied and copied by the sculptors and carvers, as well as designers for calicoes, carpets, paper-hangings, and porcelains. Flower-stands, window-boxes, garden-benches, and rustic work generally, are also embellished with flowers and foliage *made of wood*. Indeed, nothing relating to ornament can be finished here without these rich materials, which, happily, are as inexhaustible as they are varied. To be sure, designers sometimes take most unwarrantable liberties with Nature, or, at least, they show proofs of entertaining whimsical notions of taste. No matter; effect is their object, and, with them, the "end justifies the means." We may thus sometimes see a group of *Stephanotis floribunda* with bright crimson flowers; or a switching of climbing Roses flung gracefully over a downy cloud.

One of the most striking of the park improvements here is the *Avenue de l'Imperatrice*, opened last year as a kind of

Rotten Row drive, as well as a better and more direct road between the capital and St. Cloud. It runs from the *Grand Arch de Triomphe* right through the *Bois de Boulogne*, joining with the main road at the end of the lake. The ground on each side for about fifty yards is to be laid out in lawn and shrubbery. As yet, however, there is a good deal to be done in getting it into proper form; but it will be in keeping with the new works in the vicinity of the lake that is irregular and undulating. On the north side the ground rises considerably, and there are many pretty little villas overlooking the drive.

The mode adopted here of layering Pinks, Carnations, &c., when the stalk chosen cannot be bent to the ground, is to fasten the pot to a stick by means of wires. But it is not easy tying such a thing as a pot, and, accordingly, but few persons like the trouble. My layering pot, noticed in your volume for last year, would be found particularly well adapted for special cases in layering these favourite flowers.

M. Decaisne has written a biography of the late Antoine Poiteau, whom he calls the "parfait modèle du jardinier." But it would appear that Poiteau was more of a botanist than a gardener; and four large volumes, which I have seen at the Museum library, attest that he was also a pretty good scholar, and a clever draughtsman. But all his knowledge, and all his talent, were the result of his own unwearied application and research in after life; and he may be cited as an example of what a man may make himself, even when striving against immense odds and disadvantages. Poiteau was never too old to learn, never too old to begin and accomplish a new task. But Nature had given him a strong constitution, and a love of learning for its own sake. What may not a man do when thus favoured and endowed? Many have the one, but not the other.

From the notice of M. Decaisne, we learn that Poiteau was born in a small village of Picardy, called Amblemy, in the early part of the year 1766, and he lived to the long age of nearly eighty-seven years. His name is connected with several works which occupy a prominent place in the literature of French horticulture and botany, including a great number of papers relating to his travels, published in the *Annales du Muséum d'Histoire Naturelle*. Among the first of his contributions is the *Flore Parisienne*, a folio volume, in which he was assisted by M. Turpin. In 1816, he published a catalogue of plants in the *Ecole de Médecine*. In 1817, he was appointed head-gardener at Fontainebleau; but he soon left his post to occupy another having more attractions for him—that of "Botanist to the King," and Director of the Royal grounds at Guineu.

Returning to Paris in 1820, he published a series of papers, illustrated with a great many figures relating to different genera and orders. These papers, says M. Decaisne, place their author among the best botanists of his time.

At an age when most other people think of resting from their labours, M. Poiteau continued at his task apparently as fresh as ever. In conjunction with M. Risso, he published, in 1818, a *Histoire Naturelle des Orangers*. The early editions of *Arbres Fruitières* were almost exclusively due to his pen and pencil. This work was first published in six folio volumes, and contained 416 coloured plates. Subsequently, M. Poiteau published it in his own name, under the title of *Poulogie Française*, containing 434 figures, and descriptions of the finest fruits cultivated in France.

From the year 1826 downwards, M. Poiteau's name is to be found in all the leading horticultural works. He was one of the editors of the *Bon Jardinier*, and the founder of the *Revue Horticole* in 1829. He also contributed largely to the *Dictionnaire d'Agriculture*, and to the *Cultivateur*; besides conducting the *Annales de la Société Centrale d'Horticulture*, and directing the instruction of the young gardeners in the celebrated garden of Fromont. He was a member of the Central Society of Agriculture, and was decorated, by Louis-Philippe, with the Cross of the Legion of Honour. The name of M. Poiteau is ranked with those of La Quintinie, Duhamel, Thouin, and others, who have risen to eminence in their profession.

With respect to the *Arbres Fruitières*, it may be observed, that though that work has many great merits, and shows that it must have required a vast amount of time and labour, yet its size and price are such as to place it beyond the

reach of all likely to need it, or be benefited by it. Many of the subjects are of doubtful utility as to kitchen or dessert fruit. But the great mistake has been in making the plates so large and pictorial. There can be no doubt that reduced figures, neatly engraved on wood, would have answered every purpose, and have enabled the author to confine his work within something like reasonable limits. As it is, we can only find it in public libraries, or mouldering on the shelves of wealthy amateurs. An Encyclopædia of fruit and vegetables would be an excellent subject for some future Loudon or Poiteau. But in such a work, people do not want a great deal of fine writing, so much as the means of identifying and distinguishing different varieties. In this respect, Loudon's *Encyclopædia of Plants* might well be taken as a model.

We have as yet had very little winter here. Indeed, for more than a month the weather has been remarkably warm and mild for the season, the thermometer averaging about 50° Fahr. From the 16th of January to the 25th the glass stood at about 58°. A much lower temperature intervened till the 6th of the present month (February), when the glass again rose to about 60°; at the same time—that is, from the 6th to the 9th—we had a good deal of wind during the night. On the 1st inst. there was a gentle fall of snow. During the last few days the temperature has cooled considerably, and we have had several touches of frost. From the provinces we have accounts of snow-storms and several degrees of frost.—P. F. KEIR.

DRIED PLANTS AND FLOWERS.

HAVING mentioned, in my former communication, that I was arranging a collection of dried plants and flowers, one of your readers, "F. W.," requests that I will give a hint or two of my "*Modus operandi*." This I am quite ready to do, being desirous of promoting any love for so useful and instructive an occupation, connected, as it generally is, with healthy exercise and recreation in the collection of specimens.

I should, however, observe, that I am but a novice in the matter, and have only acted upon the plan which has suggested itself to me, and it is probable there may be much better methods of proceeding used by those more acquainted with the subject.

I first procured a quantity of demy paper, size, when folded, seventeen-inches-and-a-half by eleven inches, and the specimen being dried, I endeavour to ascertain its common, or botanical name; and having done so, I take one of the sheets of paper, and write on the top of the right hand corner the *Natural Order* to which it belongs, and in the centre of the sheet, also at the top, I place the name of the genus, or family. Having ready some gummed white paper cut into thin strips, I then take the specimen, and fasten it securely in such situation as its size may indicate, and write underneath its botanical name, with the English meaning thereof, adding its vulgar, or common, name, with the country where it is indigenous, and, if not British, the date of its introduction into this kingdom. On one side of the plant, in the margin, I place the locality from whence the specimen was obtained, and time when gathered. I find, generally, that one page will be sufficient for a family, but frequently more are required; but as the sheets are separate, they can be added when wanted. As the sheets accumulate, I put each different *Order* together, and then the families of the different *Orders alphabetically* (not botanically), as affording much easier reference, for paging cannot be carried out until the whole quantity of paper required is ascertained; and this is difficult to know, as you cannot tell *when* or *where* you will stop.

I also make, as I proceed, a separate *alphabetical* list of the *families*, with the *Orders* to which they belong, so that when I know to what family a specimen belongs, I can turn to the *Order* at once.

I should say, that while abroad, I derived considerable assistance from the Curator of the Natural History Museum at Nice (the Abbé Montelino), who obligingly gave me the names of nearly all the specimens I collected there. I also have constant reference to the following works:—Cottage

Gardeners' Dictionary, Flore de Nice, Lindley's School Botany, Catlow's Popular Field Botany (containing many useful directions), Moore's British Ferns, and Sowerby's English Botany. I also procured two copies of the London Catalogue of British Plants, and cut them up so as to make one *alphabetical* list of the whole, to mark off the sorts as procured. As you may think this communication long enough for the present, I will only add, I shall be willing to give any further information in my power.—E. COPLAND, Bellefield, Chelmsford.

NEW PLANTS.

CRESCENTIA MACROPHYLLA (*Large-leaved Calabash-tree*).

This belongs to the Natural Order of Crescentiads (*Crescentiaceæ*) and Didymia Angiospermia of Linnæus. "Its native country is still unknown; but, judging from the habit of the plant, we think it must be Tropical America. *Crescentia macrophylla* must, on account of its fine foliage, rendering it what German gardeners term a "Blattpflanze," be regarded as a desirable acquisition to our hothouses, and we have no doubt that it will soon make its way into almost every horticultural establishment.

DESCRIPTION. The largest of the plants cultivated in the stoves of the Royal Botanic Gardens at Kew is about seven feet high; but we have received information that, in the Botanic Garden at Schöneberg, near Berlin, there are specimens growing which measure more than twelve feet in height, making it probable that this species attains the size of a tree. The *petioles* and young *branches* are purple; and the *leaves*, which are alternate, simple, obovate-lanceolate, with a short acuminate, and euneate at the base, measure occasionally fifteen inches in length, and in the broadest part from two to three inches across. The *peduncles*, growing out of the old wood, are about one-and-a-half-inch, and the *calyx* one inch, long; both *calyx* and *corolla* (the latter being greenish) are furnished with glandular dots. The *style* and the *stamens* are as long as the tube of the corolla. The *ovary* is unilocular. The ripe fruit is still unknown. *Seemann.*" (*Bot. Mag.* t. 4822.)

OUIRANDRA FENESTRALIS (*Lattice-like Ouvirandra*).

Natural Order (*Juncaginæ*) and Hexandria Monogynia of Linnæus. This plant was discovered in Madagascar, some sixty years since, by M. A. du Petit Thouars. Its leaves are a series of beautiful network, or veins, without any parenchyma between them. Living plants were first introduced into this country by the Rev. William Ellis, of Huddesdon, in 1855. Stock is being raised from them by Messrs. Veitch, and it is thus spoken of by Sir W. Hooker:—

"We shall be surprised if all who are curious in horticulture and botany do not possess themselves of so beautiful and curious an object, and which is cultivated with the greatest ease in a stove (or possibly a warm greenhouse), in a shallow pan of rain-water, including a moderate quantity of earth for the roots to feed upon,—being entirely aquatic, the leaves even submerged; and we cannot doubt but it may be cultivated in glass Aquaria, and even in a glass jar placed in the drawing-room, as is done with the *Vallisneria spiralis*, etc.

"The natives describe this plant as growing on the margin of running streams. The root, or rhizome, is about an inch in thickness, and six or nine inches long, often branching in different directions like the roots of ginger or turmeric, but in one continuous growth, not a succession of distinct formations, attached at the termination of one and the commencement of another. The root is composed of a white fleshy substance, apparently without large or tough fibres, and is covered with a rather thick light brown skin. The plant is attached to the sides of the streams in which it grows by numbers of long, fine, fibrous radicles, which penetrate and adhere firmly to the loam or clay of the banks. Entangled amongst these roots were large quantities of decayed leaves, and other vegetable substances, from which the plant may probably derive some portion of its nutriment, though, from the bubbles of air frequently found under the leaves, it would seem to possess the property of decomposing a portion of the water in which it grows. I

was informed that it also grew in places which were dry at certain seasons of the year; that the leaves then died down, but the root buried in the mud retained its vitality, and when the water returned fresh leaves burst forth. The natives spoke of it as tenacious of life, and said, that whenever the earth around, even the smallest portion of it, remained moist, that portion would put forth leaves when again covered with water.

"This plant is valuable to the natives, who at certain seasons of the year gather it as an article of food, the fleshy root, when cooked, yielding a farinaceous substance resembling a yam. Hence its native name, *Ouvirandruo*,—literally, *Water-yam*, or yam of the water: *ouvi*, in the Malagasy and Polynesian languages, signifying *yam*; and *ruo*, in the former, signifying *water*.

"The *Ouvirandra* is not only a rare and curious, but a singularly beautiful plant, both in colour and structure. From the several crowns of the branching root, growing often nearly a foot deep in the water, a number of graceful leaves, nine or ten inches long and two or three inches broad, rise on slender stalks, and spread out horizontally, *just beneath the surface of the water*. The flower-stalk rises from the centre of the leaves, and the branching or fork-like inflorescence is curious; but the structure of the leaf is peculiarly so, and seems like a living fibrous skeleton, rather than a perfect leaf. The longitudinal fibres extend in curved lines along its entire length, and are united by thread-like fibres or veins crossing them at right angles, from side to side, at short distances from each other. The whole leaf looks as if composed of fine tendrils, wrought after a most singular pattern, so as to resemble a piece of bright green lace or open needlework. Each leaf rises from the crown on the root like a short, delicate-looking, pale green, or yellow fibre, gradually unfolding its feathery sides, and increasing in size as it spreads beneath the water. The leaves in their several stages of growth pass through almost every gradation of colour, from pale yellow to a dark olive, becoming, before they finally decay, brown or nearly black; while air-bubbles of considerable size frequently appear under the full-formed and healthy leaves." (*Ibid.* t. 4894.)

CLIVIA GARDENI (*Major Garden's Clivia*).

Natural Order Amaryllids (*Amaryllidaceæ*) and Hexandria Monogynia of Linnæus. A greenhouse bulb from Natal, introduced by Major Garden. Flowers yellow and scarlet. It blooms during the winter months. (*Ibid.* t. 4895.)

WEIGELA AMABILIS (*Lovely or Wrinkled-leaved Weigela*).

Natural Order Caprifoliaceæ, Pentandria Monogynia of Linnæus. A shrub from China, or Japan, as hardy as *Weigela rosea*. Introduced by Messrs. Low, of the Clapton Nursery. Flowers rose-coloured. (*Ibid.* t. 4893.)

THE WALTONIAN PROPAGATING CASE.

THE first account we heard of this simple and most useful contrivance was at page 4 of the 14th volume of THE COTTAGE GARDENER, at the beginning of April, 1855. I said then, that "on seeing the original sketch, there were some slight improvements which occurred to me, to which Mr. Walton assented, and another apparatus is now in the hands of a skilful mechanic who will set it up in his own shop the moment it is ready. As soon as we shall ascertain the exact power of the Case, the cost of making, and the cost of working at Surbiton, I shall draw up a report of it, and we shall give an engraving to explain the working of it." The skilful mechanic alluded to in this passage is Mr. West, our chief ironmonger, &c., here, who made the first Case for Mr. Walton. The second Case referred to was "put up" in his shop last May; but, like other clever men, Mr. West would have his idea of the apparatus experimented upon, as well as what I suggested on the original. It was, therefore, proposed by Mr. Walton, that Mr. West and I should hold a Peace Conference on the apparatus, which we did, and the result of our deliberations is now before you. A Peace Convention ought to "sit" a month, at least, if only for the look of the thing, and to make believe in the difficulty of

hatching such eggs; but instead of helping me to "sit," Mr. West was "on the go" the whole month. We were then at the end of May, and the summer heat deranged our artificial heat to such a degree as made it plain to both of us that no reliance could be placed on the results arrived at under such conditions. "The exact power of the Case," and "the cost of working at Surbiton," could not be ascertained during the summer months, and in winter no one, for whose use and benefit we were engaged, thinks of striking cuttings; therefore, the time for the fulfilment of the promised accounts had not yet arrived. It was the beginning of February before cuttings were thought of hereabouts, and up to this date (the 28th) no frost of any severity occurred to allow of the cost of working the apparatus to be computed; neither was it possible to calculate on "the exact power of the Case."

Now, seeing that these are the most essential points to be known; seeing, also, that the promise of the drawing, accompanied by the "essential points," was conditional; and, moreover, seeing that natural causes alone, which are beyond mortal controul, prevented the essential points from being ascertained; I say, seeing all this, will it not surprise you to hear that Mr. Walton has been persecuted, almost every day for the last six months, by parties desiring to know that which no one could ascertain sooner, owing to natural causes? I have, over and over again, apologised to Mr. Walton for being the cause of so much trouble and annoyance to him, and I would publish the names and addresses of every one who broke through that privacy which every English gentleman values as the apple of his eye, were it not that I know some of them have families who would feel degraded by the exposure.

As the power of this form of the apparatus and the cost of working it cannot be known till we have a run of hard frost during the propagating season, all that I can do now is to repeat, that Mr. Walton's own Case costs him no more than twopence for the four-and-twenty hours, taking the average of the propagating season. Mr. Walton's butler, who gives out the oil, declared this to me last week. He told me, also, that the lamp must be trimmed three times in the twenty-four hours, as the best lamp-maker in London, who made the one in question on purpose for the apparatus, would not guarantee its working properly more than eight hours without being trimmed; but that lamp holds sufficient oil to last several days.

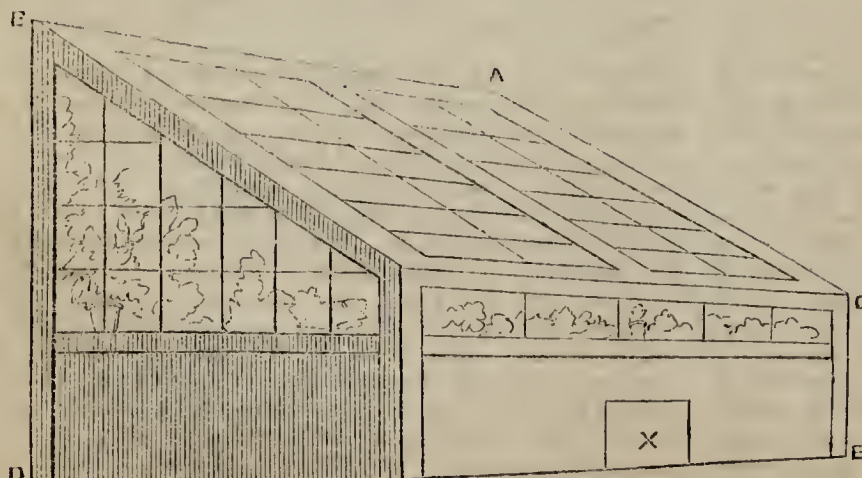
I must repeat, once more, that I never saw a better contrivance for amateurs to strike cuttings and raise seedlings with than this of Mr. Walton's, and that there is not a better mode in existence, as far as I am aware of. There is nothing better in any of the London nurseries I have seen; nor at any of the botanic gardens; nor, in short, anywhere.

Hot-water, without circulation, is now proved to be as good, on a small scale, as it is by circulation on a large one. Mr. Walton's first idea was to apply the heat of a lamp, or gas jet, to the bottom of a tin can by means of a double bottom or "false bottom," and on that principle his own Case is still worked. In the present form of it the heat is brought direct into the body of the water in a zinc tube, coiling round and round, then out through the back of the Case, to carry off the smoke and smell; and the principle is the same as that by which the water in the basins in the

Crystal Palace is kept warm; hot-water pipes heat the water in the basins, and a zinc pipe heats that in this apparatus, being heated itself either by gas or oil. But where gas can be applied, I would recommend it as far preferable to a lamp, because there is no bother about snuffing, trimming wicks, or keeping a lamp clean. A lamp must be trusted to a servant when the master is out, and if he neglects it, your batch of cuttings may be dead and gone before you come home. But as gas cannot be had everywhere, I subjoin Mr. Walton's description of his own case, with sketches to illustrate the working, premising that his fears about the draught from the lamp through a coil of tubing were groundless when the gas was applied, and that nothing acts more satisfactorily with a very small jet of gas. Neither is it necessary to begin with hot-water if that in the tin case should get cold at any time. Also, that what he means by the lamp burning for eight hours, is not that the half-pint of oil is consumed in that time, but that the lamp requires trimming at the end of eight hours.

"The box I used was an old one, to which I added a top, so as to give an inclination, as in a garden frame. Half way down, in the inside, a moulding is nailed, on which the zinc frame rests. The pots are placed on the zinc frame. The boiler is of tin, surrounded by a false cover of tin, which I found necessary to create a draught for the lamp. A small chimney runs from the inner boiler, through the false cover, into the frame; and, although the water does not boil, the steam, or moisture, keeps the frame damp. The false cover has a chimney which runs through the frame and out at the back, to carry off the smoke, if any, but there ought to be very little. The lights are divided into three, and are merely fixed in zinc frames, not wood, and let into the top, to lift on and off, or tilt. This is better and cheaper than glass in a wood frame, as the water (why, I cannot tell) does not drop inside, but rests on the outside, and may be tilted off. The lamp was made by Smithurst, of Bond Street, but is quite plain and circular, holding more than half-a-pint of Colza oil. It must be well trimmed, so as not to smoke, and then will burn eight hours. A tin lamp will do just as well. The smoke does not get at the plants, but would collect at the bottom of the boiler, and fall on the lamp.

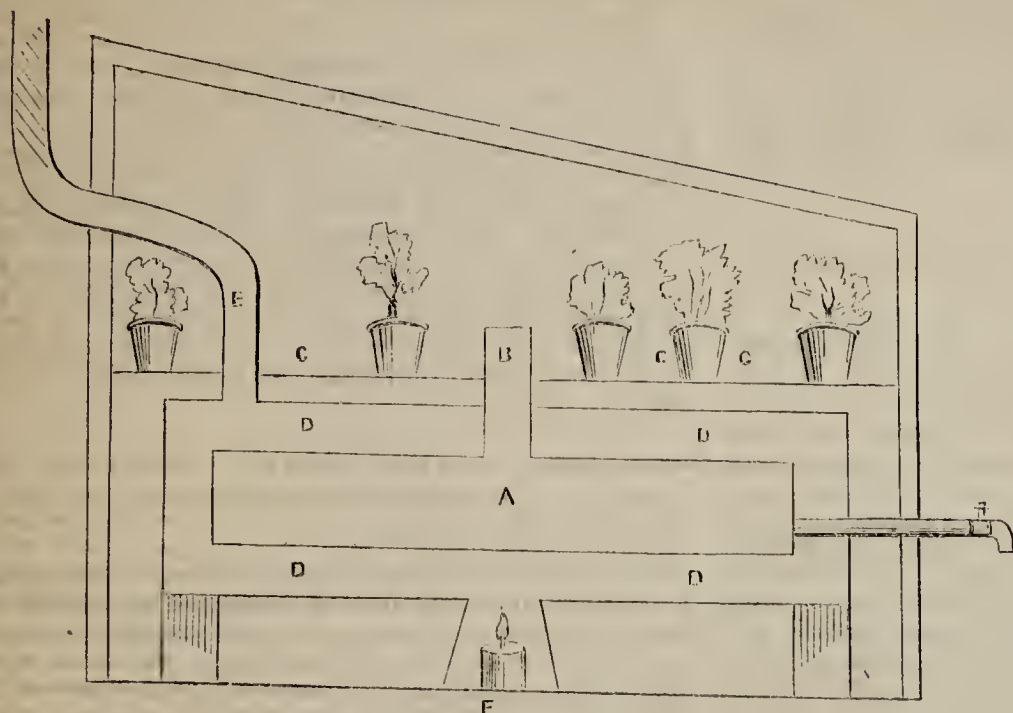
"The lamp is three inches high and four inches across. If trimmed at night it will be alight in the morning, and should be trimmed in the middle of the day. If the lamp should go out, and the water become quite cold, draw off some and add hot water, otherwise the lamp will not burn. I have raised from cuttings, *Roses*, *Verbenas*, *Fuchsias*, and *Dielytra spectabilis*, and it is excellent for forcing seeds of all sorts. Mr. Beaton, our gardening authority here, says it will raise any thing that can be raised by heat, as it is so clean and moist. He has suggested an improvement, which I intend to try; which is, to do away with the outer tin case, and to insert, at the bottom of the boiler, a coil of zinc tubing, and to carry it out through the Case as my smoke is now. This would be more simple, but I very much doubt if the lamp would have sufficient draught to burn. Mr. West, the ironmonger here, has made them complete for 35s.; but he could make the boiler apparatus, tin lamp, &c., separate, and you could have the zinc tray and box made in the country to fit the boiler.



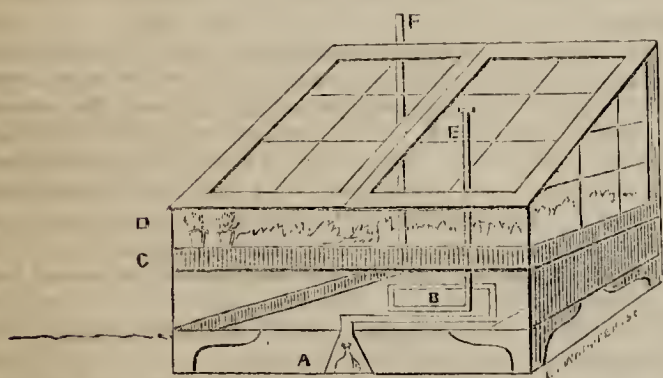
A to B, 2 feet 8 inches. A to D, 1 foot 9 inches.
B to C, 2 feet. D to E, 1 foot 7 inches. X Door
for lamp.

"My lamp is copper, but tin would do as well. It has an extra head to burn three wicks instead of one, which add much to the heat, but I found one sufficient. The lamp

holds more than half-a-pint of oil, is 3 inches high, and 4 inches across.



- A. Boiler.
 B. Steam chimney opening into middle of box through the zinc tray.
 C C C. Zinc tray.
 D D D. Outer cover to boiler, through which the heat is conveyed from the lamp round the boiler, and the smoke out through E.
 H. Tap to draw off the water.



A. Gas jet under the funnel head. B. Coil of zinc tube, one inch in diameter. C. Lid covered with sand. D. Pots of cuttings or seeds. E. Vapour tube. F. Smoke or smell tube.

The best size for the box is thirty-four inches long, seventeen inches wide, thirteen deep in front, and eighteen inches at the back, all inside measure. Such a box will hold three rows of No. 48 pots, and six pots in a row; or four rows of No. 60, and eight pots in the row. When making a smaller, or a larger box, one ought to fix on how many of those two sizes of pots the box would hold conveniently without loss of space. An amateur should never use a pot larger than a 48 for striking cuttings, and that size is large enough for all his seeds. The tin case to hold the water should not be less than four inches shorter or narrower than the box inside, which leaves two inches between the tin and wooden boxes at the ends and sides, and it should be four inches deep; then, when the heat is raised to 80° or 85°, it matters not if the lamp, or jet of gas, should go out for some hours, or as long as the heat keeps up to 70°. If the size of the tin box is so small that the body of water in it is not sufficient to keep up the heat for several hours without a constant burning of gas, or oil, the first expense will be less, but the disadvantage would be in greater proportion. The lid of the tin case is made in the shape of a tray, with the edges raised about half-an-inch, so as to hold sand on which the pots stand; a tube, five or six inches long, and about an inch in diameter, is soldered to the lid to let up vapour, not steam, from the hot-water, so as to keep the air sufficiently moist for the health of the cuttings or seedlings. If too much vapour rises, cork the tube. Make the tube also to index the depth of water by a float—a piece of cork with a small stick fixed in it, and rising through the tube; but it might be supplied from the outside by another tube, and a tap to empty the water may be applied. But I see no use in that, as the lid is not fixed in the present case; it fits like the lid of a tea-kettle, and as closely, so as to let off no

steam or vapour, and the raised rim of the lid projects an inch beyond the edge of the box. You begin in February, and when you leave off in summer the whole should be opened, and receive a coat of paint, and there is no occasion to draw off the water by a tap in the meantime. The tin box rests on the bottom of the wooden box without anything between them; but the two inch spaces at the sides and ends should be filled up with sand to the level of the sand on the lid. The end of the tube for heating passes down through both the boxes, and ends with a funnel head to receive the jet, and there is a "next" for holding a lamp. The wooden box stands five or six inches from the ground, on legs, after the manner of a chest of drawers. The sashes to cover with may be like garden-lights, or in one piece of stout glass let into a zinc frame, to move "off and on;" or the top may be hinged on and locked, like a desk; and, as I said before, the whole may be made to suit a drawing-room, where it would "work" just as well as anywhere else. It is not calculated for the open air.

D. BEATON.

QUERIES AND ANSWERS.

GARDENING.

CALCEOLARIA CUTTINGS.

"I am anxious to get a bed of *Yellow Calceolarias*, and have only four old plants. Will you tell me the best way of striking them "now?" Ought they to have bottom-heat? if so, how much? I have plunged them in a cucumber-bed, but have never found the cuttings had any root; and this, I find, is the case with a number of my friends' cuttings also.—J. F."

[It is more than likely that these old *Calceolaria* plants, and nine-tenths of all the old *Calceolaria* plants growing, are now in the flowering condition, if not actually in flower-bud; and when they are so, that is the worst state they can be in for getting cuttings from them. Indeed, all the best kinds of bedding *Calceolarias* never root from "flowering wood," as gardeners say; and when they do, the plants are not worth having. The way gardeners manage to get over this difficulty, when they want spring cuttings, is this,—they take the old plants out of cold frames about the 1st of February; but it is not too late now. "Look them over," and cut back the tops of the shoots to the bottom of the last long joint from the top. When a *Calceolaria* is growing for wood, from September to May, all the joints, or the distances between one set of buds and the next set, grow of equal length, or nearly so; but as soon as the flowering

principle comes on, the next joint that grows is much longer than any joint below it; therefore, it is to the bottom of this joint we must cut to, when we put *Calceolarias* in heat for cuttings; or whether we put them into heat or not, this flowering propensity ought to be stopped early in the spring, and the next growth from the stopped shoots is the best "stuff" in the world for spring cuttings. As long as all the growth of this class seems pretty equal in length of joint, the tops are, of course, fit for cuttings. *Petunias* ought never to be struck from flowering wood; but *Verbenas* will do equally well, flower or no flower.]

SELECT ORCHIDS AT A MODERATE PRICE.

"Please inform me the names and colours of twelve of the very best and most showy Orchids in cultivation that can be purchased from 30s. downwards, per plant.—A SUBSCRIBER, Worcester."

[You ought to have stated what means you have to grow Orchids. There are two distinct classes of these valuable and interesting plants. The first class is from the East Indies, and requires a higher temperature, and a greater amount of atmospheric moisture; the other class thrives better in a lower heat, with less moisture. However, as your price will purchase but few of the former, we will confine our answer to the latter, premising that all of the list below are very fine, showy species, and well worthy of being cultivated even in a small collection. You ought to have blooming plants at the prices quoted:—

	s.	d.
<i>Calanthe veratrifolia</i>	10	6
<i>Cattleya crispa</i>	15	0
——— <i>Mossiae</i>	15	0
——— <i>Harrisoniae</i>	10	6
——— <i>labiata</i>	31	6
<i>Dendrobium nobile</i>	10	6
——— <i>densiflorum</i>	21	0
<i>Laelia anceps</i>	15	0
<i>Lycaste Skinnerii</i>	21	0
<i>Odontoglossum grande</i>	10	6
<i>Oncidium papilio</i>	15	0
<i>Zygopetalum Mackayi</i>	10	6

These will grow well in a temperature of 55° to 60° in winter, and 65° to 70° in summer. If you can divide your house into two parts, and can keep one warmer than the other, then you might, at your pleasure, add the following for the warmer end:—

	s.	d.
<i>Aerides odoratum</i>	31	6
——— <i>crispum</i>	31	6
<i>Chysis bractescens</i>	31	6
<i>Cœlogyne cristata</i>	21	0
<i>Dendrobium formosum</i>	21	0
——— <i>chrysanthemum</i>	15	0
——— <i>moniliforme</i>	15	0
<i>Miltonia candida</i>	21	0
——— <i>spectabilis</i>	15	0
——— <i>Clowesii</i>	15	0
<i>Oncidium Lanceanum</i>	21	0
<i>Stanhopea tigrina</i>	15	0

In purchasing Orchids, the buyer should, if possible, see the plants; the value so much depends on the size of the plants. One may be worth a guinea, whilst another of the same species may not be worth five shillings; so that it is always more satisfactory to both the buyer and seller if the plants are viewed at the time of sale. Not but what there are many respectable nurserymen who would, if any Orchids were ordered, and the price named, send as good plants for the money as could be bought, even if the buyer were present; but, as remarked above, it is far more pleasant to both parties if the plants and price are agreed upon on the spot. Sometimes good plants may be had at sales in London; but the purchaser ought to be a good judge of their comparative rarity and value at the time.]

STRIKING ROSE CUTTINGS IN THE SPRING.

"As I am now about to prune my Roses, I should be much obliged if you would tell me which would be the best

way of striking the cuttings. The wood is well ripened. Will they strike best in a hotbed, or in the natural ground? I have most of the best Hybrid Perpetuals, as well as several Bourbon, China, Gallic, &c.—A ROSE GROWER."

[Gallica Roses will not come from spring cuttings at all, and you are now too late for all Hybrid Perpetuals, but you may try them thus:—Take little, weak shoots, not more than four inches long, and with a heel to them, and plant them three inches deep in sand, and press them firm into it, and in a place where the sun cannot reach them from nine in the morning till late in the afternoon. Then you may get one out of a dozen, or not lose more than that; we have seen ten out of every twelve of them root and do well. The Bourbon Roses, the Teas, Chinas, and Noisettes, root as easily as the old China Rose in cold or heat; but unless one is well up to the practice, it is very dangerous to put Rose cuttings from the open ground into heat in March or April.]

PROPAGATING THE ZELINDA DAHLIA. — LOBELIAS AND VERBENAS MILDEWING.—STOPPING VINE SHOOTS.

"I have about six roots of the *Zelinda* Dahlia, and I shall be glad to know if they will propagate in a hotbed sufficiently to plant a bed twelve feet in diameter. Some of them are the white variety; are they the same habit as the others? They came from Trentham Hall, and are marked *Zelinda alba*. Does this variety, when planted in a mass, require tying up? and should they be confined to one or two stems?"

"Last year my *Lobelias* (*ramosoides*) were infected with a disease, or blight, which caused the leaves to turn brown and dry up. This disease commenced about the end of July, and by the middle of September every plant had disappeared. They were planted in a light, dry, gravelly soil, and the first year I had them they flourished beautifully. Can you in any way suggest a remedy? and would you advise me to try this most beautiful plant again?"

"My *Verbenas*, also, in wet weather, become diseased near the ground. It appears to me to be what is called shanking. The stems become decayed, and it spreads rapidly. Can you assist me to a remedy for this also?"

"Should *Vine* shoots be stopped when the fruit-buds appear? and should the lateral shoots that are produced from the stopping be taken out as fast as they grow?—ARTHUR LOFTUS."

[The *Zelinda* Dahlia, and all other Dahlias, will come from cuttings now as well as *Verbenas*, but not quite so fast, if the "roots" are forced in heat to produce cuttings; and these will do to bed out next May, or June, in a bed. They require very little staking, or "tying up." No bedding plant ought to be "confined to one or two stems;" the more stems the more flowers, provided the bed does not get too thick. We never saw or heard of a *White Zelinda* Dahlia; but there ought to be a *Zelinda* in every colour and shade of Dahlias; and if you are certain that Mr. Fleming, of Trentham, allowed one of his white Dahlias to be so called, you may depend upon its being a dwarf kind, and good for bedding. The word *Zelinda*, in the flower-garden, means a very dwarf, bushy Dahlia, fit for beds, no matter what the colour.

Mildew was the cause of the *Lobelias* and *Verbenas* going off, and the best remedy, in your dry soil, is, to add as much fresh soil to the beds as you can get. Where they are liable to mildew, the beds ought to be renewed every spring, from a heap of soil which had been there for months, and was turned over several times; any extra strength you could give from manures would only aggravate the evil; nothing but *fresh soil* will do, and nothing suits any flower-bed better, after all.

If the *Vines* are very strong, the safest way is to stop the shoots two joints before the bunch; but the laterals should be all stopped just above the first joint, and when that eye starts, that is, the second lateral, stop above the first joint of it also, and remember, now, to cut off the leaf belonging to the first stage of the lateral. Whatever number of joints your laterals may run to, *never have but one leaf on a lateral*. There is a principle involved in this practice which is too

often neglected. Some assert that the more leaves they have the more success, which is simply nonsense. Success depends on the *strength* and size of the leaf, and on its obtaining as much light, and air, and moisture, as it can digest, so to speak, one such leaf is worth three small ones.]

MUSA COCCINEA ROTTING AT THE COLLAR.

"Can you tell the reason of *Musa Coccinea* going black at the bottom of the stems and rotting off. Is it by reason of the stove being cold for them; or is it a disease in them? The heat of the stove is from 58° to 60° at night. They have been kept as dry as possible. They have much gone

off these two last winters. What is the reason; and what is best for me to do for them? What soil ought they to be grown in?—A CONSTANT SUBSCRIBER."

[We do not clearly see the reason of this decay, as the plants are kept dryish; otherwise they would have required 5° more of temperature, and would like that as well even now. Has the house been raised sufficiently to give a current of air during the day? A close, humid atmosphere, and any thing like drip, long continued at the collar of the plant, might produce the evil complained of. Sandy, fibry-loam, and peat, with a little leaf-mould, will answer well for this *Musa*; and towards winter it would be advisable to pick away, with a pointed stick, the old soil from the collar, and replace it with fresh and dry soil.]

PROTECTION FOR FRUIT BLOSSOM.

"Will you oblige me by stating which is the best protection from frost that can be placed over the blossom of Apricots and other wall fruit in spring? — AN ENQUIRER."

[There can be no doubt that a glass lean to, like a range of closely fitting Cucumber glazed lights, is the *best* protection of the kind you enquire for. If you had asked for the *cheapest* protection we should have named sprays of Firs, Laurels, and other evergreens. If you were to refer to the Indexes of previous volumes you would find the cotton and woollen coverings recommended by Mr. Errington and other good authorities. The most recent of these is that employed successfully at Snelstone Hall, near Ashbourne, in Derbyshire, the seat of John Harrison, Esq.

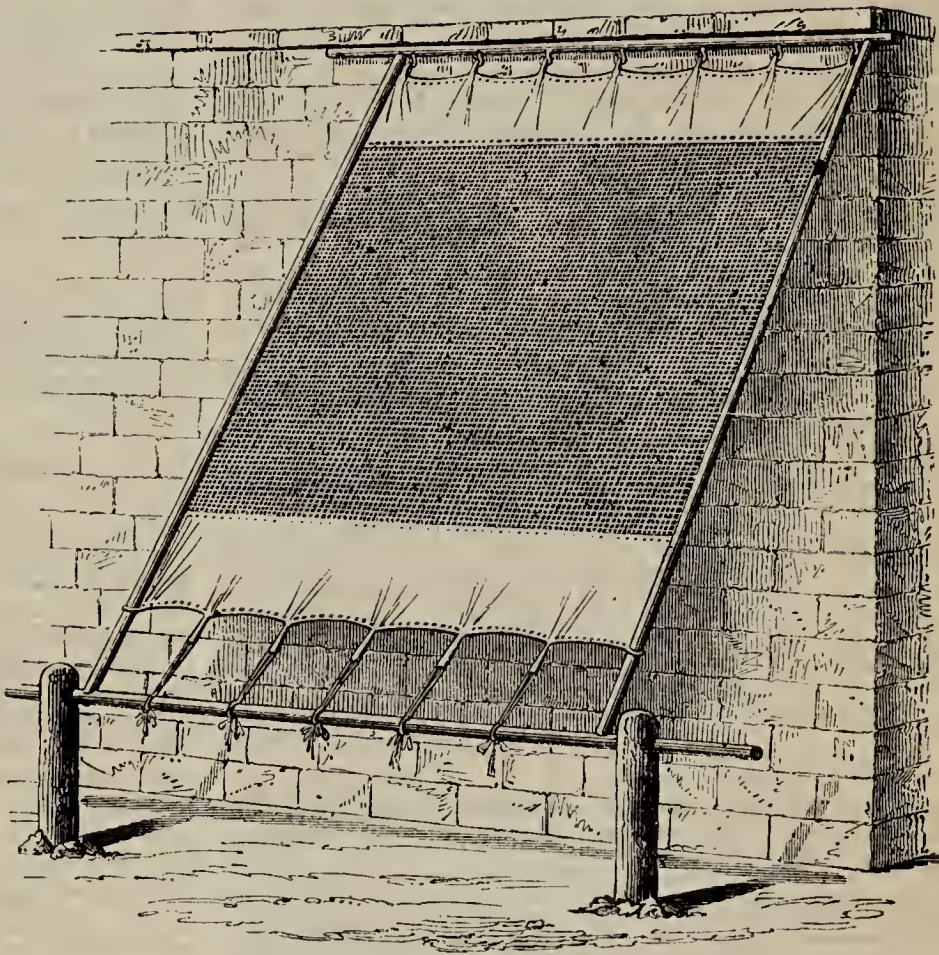
"A rod is placed horizontally beneath the coping of the wall. Another horizontal rod is fixed upon posts three feet from the bottom of the wall, and eighteen inches from the ground; the two horizontal rods are connected at intervals by slight braces, or rods, as is shown in the annexed woodcut.

"A covering, prepared by sowing woollen netting on its upper and lower edges to coarse calico, is then attached to the upper rod by loops and to the lower by pieces of tape, when the protection is complete.

"Mr. Harrison states that the cost of the worsted net (which is two yards wide), is 1s. 8d. per yard running. The calico, one yard wide, is 2d. or 2½d. according to quality, and when used to slit down the middle, and one half being sewn to the top, and the other to the bottom of the net, the covering becomes three yards wide. The tape and making up he finds of small cost, while of poles he has abundance of no value. The whole together, in London, where every article has to be purchased, ought to be under 2s. a yard running, including making and putting up.

"The walls at Snelstone are brick, eleven feet high, with stone coping, which projects about two inches on each side. The trees are unnailed before winter, and fastened loosely to the wall to prevent their being broken by the wind. In this state they are kept until they are ready to burst into flower, the object being to retard vegetation at that season as much as possible. They are dressed with the following composition, namely:—Take equal quantities of sulphur vivum, Scotch snuff, and unslaked lime, the lime to be sifted through a fine sieve; then add half quantities of lamp-black, and mix the whole with urine and soft soap-suds to the consistency of thick paint. The old and young wood is dressed with this with a painter's brush, after the trees are pruned, after which they are nailed all from the upper side of the leading branches.

"Mr. Harrison's walls are flued, but the fire is used only to ripen the fruit in succession if required, and, in a very wet season, to ripen the wood after the fruit is gathered. The flues are never used in the spring.



"The advantages of this netting are very great. The walls at Snelstone contain eight peach and eight nectarine trees. The netting is fixed up and taken down in two or three hours, is set up when the blossom cannot longer be kept back, and remains permanently fixed, until taken down about the latter end of May, when all danger from frost is over. The gardener can walk and work under it to nail or disbud the trees; there are no blistered leaves, and the first shoots always ripen their wood, insuring fruit for the following year.

"It may be added, that the woollen netting used by Mr. Harrison is purchased of Messrs. Weatherhead, Irongate, Derby."—*Horticultural Society's Journal*.

TO CORRESPONDENTS.

NAME OF FLOWER (R. B. T.).—Your flower is called *Elichrysium bracteatum*. This is commonly called "Yellow Everlasting." It is a half-hardy annual; and there is a pale or white variety of it. There are many other plants commonly called "Everlasting Flowers," too, such as the purple and white *Xeranthemum annuum*, *Antennaria margaritacea*, *Gnaphalium arvense*, and *Filago germanica*. There are fourteen volumes of *THE COTTAGE GARDENER*, besides that now publishing. You can have them at 8s. 6d. per volume. Mr. Tegetmeier's *Profitable Poultry*, an eighteen-penny book, will suit you.

CHEAP GREEN PAINT (*Countryman*).—For rough out-door work the following recipe, we are told, makes a bright green and durable paint. Yellow ochre and wet blue, of each 23 lbs.; road-dust, sifted fine, 42 lbs.; blue-black, 2½ lbs.; grind them well together, and mix with 1½ gallon of

lime-water; then add 1 gallon of prepared fish oil; prepared residue of fish oil, 15 pints; and linseed oil, 15 pints.

WATER FOR PLANTS (T. G.).—Unless we know the saline ingredients in your well, at Richmond Hill, it is impossible for us to say what will improve it for watering purposes. If the water is very "hard," as it is termed, and the hardness arises from the salts of lime dissolved in it, the best preparation will be to dissolve the eighth-part of an ounce in each five gallons of water, and let the water remain exposed to the air in the greenhouse for a few hours before giving it to the plants.

GERMAN PASTE FOR CAGE BIRDS (A Subscriber).—One pound of wheat-flour, or of peas-meal; two ounces of fresh butter; four ounces of brown sugar; three eggs boiled hard and chopped very small. Put the flour or meal, with the butter, chopped eggs, and sugar, into a wide saucepan over a slow fire, and keep stirring it to prevent its burning; when it becomes dry, continue stirring it until it becomes crumbly. When crumbly, put a pint of cracked hempseed into the mixture, and mix well together. If burnt it is injurious to the birds. It will be good for months if kept in a dry, cool place.

LYCOPodium (A. L. W.).—Yours is *Lycopodium selago*. To grow it successfully imitate Nature as much as possible. A good portion of the natural soil containing the plant is one very essential point in establishing these curious and misty plants; and a free use of peat, with a little loam to make up for the deficiency of the natural soil in a moist or cool situation, with shade, but not under the drip of trees. Can any one inform our correspondent of a remedy for asthma in a bullfinch?

WINTERING GERANIUMS.—It will be time enough to jog Mr. Beaton's memory next October, and he will then tell us, probably, his experience during the past winter.

WHITE HARICOT BEANS (W. B. T.).—*Early White* and *Dwarf White sans parchemin* will do in our climate, and their ripe seeds are good when cooked.

CETERACH OFFICINARIUM (J. G.).—We cannot tell you where at Bury this Fern is found. You will find it stated to be found there, and, we think, by Mr. Woodward, in "Withering's British Plants," *Seventh edition*, Vol. iii. 987.

FLOWER-GARDEN PLAN (Corvus).—Your second figure is as well planted, or arranged for planting as your first one was; but the beds are not nearly so good. The four points of the diamond bed in the centre, if drawn to a true scale, can never be filled with flowers; and the same objection falls on the two sets of beds accompanying the end cuts. Unless you have proved the *Saponaria* on your soil, do not trust the centre bed with it. A variegated Geranium, or a collection of variegated Geraniums, would be in just the right place there, and the *Eschscholtzia Californica* will do in 6 and 14. Sow it in the first week in April, and keep it a foot from the edge. The rest of the plants will match as they stand. Your ribbon is too much of the clan Tartan-way; but your own borders are well planted in contrast.

CETERACH OFFICINARIUM IN SCOTLAND.—"Allow me to tell you that I have found not a few specimens of *Ceterach officinarum* growing upon the wall of the flower-gardens at Drumlanrig Castle, Dumfriesshire. I believe it is also found on the hill of Kinoul, above the Perth nurseries. [Mr. Beaton believes the same.] Not the warmest locality in Scotland, by-the-by.—CORVUS."

SLUGS (A Subscriber).—Mr. Beaton says he wishes he was near you, and he would undertake to keep you free of slugs and snails for twenty years for the half of the £10 you are willing to pay. There is no enemy in the whole garden, he says, more easy to conquer than the slug. He had them thick as locusts, within the last few years, in a new garden, where everything had been favourable for their increase during a period of forty years, but he got rid of them in one season, and seldom sees one now. Enticing them by green food, shade, and shelter, catching and killing, was all he did; but he believes brewers' grains are the best bait, placed in little patches all over the garden. You can then to go round and catch them at night, and also after every shower all through the summer.

MAHOGANY-TREE—MATCH FOR SALVIA PATENS (W.).—The Mahogany is a lofty timber tree, with a spreading head and shining pinnated leaves, very like the leaves of some kinds of Ash-tree, only bigger in all the parts. If you imagine a head between that of the common Ash and the American Hickory, you have the exact image of the Mahogany-tree. The flowers are small, reddish, and in panicles from the footstalks of the leaves near the top; also, terminal. The fruit is a capsule, as large as a Nutmeg, or larger, "with the valves separable from the thick axis;" the seeds are flat and winged, like the Ash seeds. *Swietenia mahogani* is the name in the natural order Cedrelads or Cedrelaceae, and in a section of it, which is remarkable for the filaments being united into a tube which is toothed, and in form like the tube in Narcissian plants; while the filaments in other Cedrelads are free, as in the Orange, which borders the Cedrelads on one side as Meliads do on the other side. The best Mahogany timber is from rocky soils, where the growth is less rapid. The Satin Wood of India (*Chloroxylon*) and the Yellow Wood of New South Wales (*Ostrya*) belong to this order.—There is not another plant, of any class, to match *Salvia patens*, or to substitute for it. Good varieties of *Delphinium sinense* come the nearest to what you want; but the roots must be saved as carefully as those of the blue *Salvia*, as they are not quite hardy on most soils.

ASCLEPIAS TUBEROSA.—CUTTINGS OF PERSIAN YELLOW ROSE (A Lover of Flowers).—*Asclepias tuberosa* is a treacherous plant in some years and in some places. It stands out, without the least harm from damp and frost, at one place, and not far off it perhaps dies, or dwindles away, after the first winter. It stands best under a west wall in a dry, light border, or on rockwork. To make sure of it, a young plant or two should be kept in pots in a cold frame, to be turned out at the end of April; and where it does well it is worth that trouble.—The *Persian Yellow Rose* will not grow from cuttings with you; but, in the meantime, you may increase it by budding like most other Roses. Your *Pinks* are, probably, eaten by slugs during the night.

HEATING A FRAME (X. Y. Z.).—Two four-inch pipes ought almost to

be sufficient, if there are means to let part of that heat into the atmosphere of the pit, as it is only four feet wide. The pipes for surface heat will make the matter more sure; and we would prefer pipes of one, or even two inches in diameter, to one of three-quarters-of-an-inch; but any would do better than none. We quite approve and admire your turf frames. The frames make all clean and dry, and the turves keep out more cold in winter, and more heat in summer, than a brick pit. We find turf-pits themselves, without frames, exceedingly useful; but then, yours will look much nicer and cleaner. Your mode of heating, staging, &c., are excellent. We presume that the boiler is used for some general purpose—would you say for what?—as it often vexes us to see heat lost that might be employed for horticultural purposes.

THE POULTRY CHRONICLE.

POULTRY SHOWS.

ANERLEY. July 15th, 16th, 17th, and 18th.

BRISTOL. June 25th and 26th. Sec. Robert Hillhouse Bush, Litfield House, Clifton, Bristol. Entries close 26th of May.

ESSEX. At Colchester, 8th, 9th, and 10th of January, 1857. Secs. G. E. Attwood, and W. A. Warwick.

NEWCASTLE, NORTHUMBRLAND, AND DURHAM. At Newcastle, March 26th and 27th. Sec. Mr. W. Trotter, South Acecomb, near Newcastle.

NORWICH. June 20th. (Norfolk Agricultural, for Subscribers only.) Sec. Mr. E. C. Bailey, Little Oxford Street, Norwich. Entries close May 31st.

WHARFDALE. April 18th, at Otley. Sec. Mr. T. Metcalfe, Otley.

WINDSOR POULTRY EXHIBITION. At Windsor, 4th, 5th, and 6th of June. Secs. Thos. Chamberlain, and Henry Thompson. Entries will close May 10th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

THE POULTRY CONGRESS.

(Continued from page 416.)

On the part of Russia, the *Polish fowl*; on the part of England, the *Dorking* and *Black-breasted Red Game*; on the part of France, the *Crève-cœur*; on the part of Turkey, the *Seraï-ta-ook*; on the part of Austria, a mixed-breed fowl; and on the part of Sardinia, a *Game Bantam*; met by common consent to arrange divers weighty matters.

The *Polander*, before they proceeded to the business before them, wished to deliver a protest from the Prussian Eagle, complaining of his exclusion. He demanded that it be read.

The *Dorking* objected; he said the Eagle had never made one in competition. He had kept aloof when there was danger, and he should not be admitted now.

The *Polander* considered the last speech as arrogant, and augured badly for negotiation, if such a style were persevered in.

The *Game* cock said, he would abate nothing of his pretensions, and if the worst came to the worst, why, they were ready to fight.

The *Austrian* said, he hoped all would bear in mind they were met for peace.

The *Crève-cœur* said, all desired that equally, but it must be a safe, honourable, and lasting peace. They wished to place all classes on a footing which should not be disturbed.

The *Seraï-ta-ook* said he must not be admitted; and the *Game Bantam* observed, that any arrangement to be durable must be agreeable to all parties, he would, however, add, that if any one had a right to assume a little, it was the conqueror. He also said, that although he did not object to peace, he would observe, that he had not asked for it.

The *Black-breasted Game* here crowed so loudly, that the members all started, and some were disposed to be angry. The *Crève-cœur*, however, interposed, and all resumed their equanimity.

Our peculiar facility for gaining intelligence has enabled us to give the opening scenes almost *verbatim*. The *Crève-cœur* began by saying, that the object of their assembling was to arrange difficulties, to allay animosities, and to put their mutual interests in a position which should be satisfactory to all who were concerned. It would be necessary to review the past, in order to come to a right understanding. They had little to do with past centuries, but it was notorious, of late, the *Polanders* were become too powerful for the *Seraï-ta-ooks*. They were neigh-

bours, and the former were in the habit of encroaching on the latter. All present were aware there had been, some years since, an arrangement of the classes at a Congress similar to the present. The prize lists had been arranged, and a proper balance settled. The Dorkings and Crève-cœur had confined themselves to their own classes, and the Polanders had, little by little, enforced his claim to intrude on the Serai-ta-ook's class. He had been allowed to do so. Now, it must be admitted, some time since, the Crève-cœur had interfered in the East to protect some of their own class, but it must be borne in mind, that having seen them righted, they asked no more. Another strong point was, their assistance was asked. The Polanders acted differently; they went to right those whom they claimed, but when they had done so, they refused to leave. The committee summoned them to do so in vain. They demanded the protectorate of all the top-knotted and crested breeds, and, accordingly, endeavoured to appropriate the class of Ghoorooks altogether. This would spoil any exhibition, and the oppressed asked the help of the stronger classes. They answered the appeal, and several trials of strength had taken place. The Serai-ta-ook began it alone, and was everywhere victorious. The Crève-cœur and Dorkings next appeared on the scene, and success was still more strongly marked. The Polanders, tired of war, asked for this meeting, in order to arrange the classes amicably, to submit them to the managers and subscribers, and to hold their shows without heart-burning or animosity.

The *Polander* rose immediately, and while he complimented the Crève-cœur on the ability of his statement, felt bound to deny the correctness of many parts. If the noble birds present meant to treat him as a conquered bird, they might save time by dissolving the Congress at once. He would admit he had met with reverses, but nothing more, and they were far from irreparable. Although not successful in getting the prizes, he had always been highly commended; and, as it was necessary to hold further competitions at the same place where they had been held before, as that was his home, while their birds had to be conveyed by railway and sea; as he was determined, until there was a more friendly spirit, to allow none of his provisions to be used for them, it would be well if they asked themselves whether it was not their interest, as well as his, to make peace. It was just possible, "que le jeu ne valoit pas la chandelle."

The *Game* cock here interrupted the speaker, by whispering loud enough to be heard, that it was a Cossack simile. Every one smiled save the *Polander*, who, after complaining, continued his speech.

It was a mistake to say they had interfered unmasked. The Ghoorooks had complained of the Serai-ta-ooks. Their burdens were intolerable.

The *Ghoorook* said, they thought so till they had tried the Polanders.

The *Austrian* said, all went on well with them now he protected them.

The *Ghoorook* was about to answer angrily, when the Crève-cœur begged the *Polander* might be allowed to proceed. He did so, by saying that he repeated they only took possession of the classes because they were too weak to protect themselves, and from their position they were unable to form any coalition. He quoted many authorities on exhibition laws, among others, Andrews, Hewitt, and Baily, to prove that a weak class injured rather than helped a show, and that it should be united to a stronger, lest it should at any time cause difficulties. What, said the speaker, caused the Dorking and Crève-cœur to interfere now, but jealousy, lest by the union of all the Top-knotted classes they should become predominant. They said they wished to protect the weak; so did he. The classes were dying, if not dead, and he sought to restore them. He had a right to do so, although not the same colour as himself. They were top-knotted, and held the same notions, and his master, as the head of the top-knotted tribes, claimed a right to the allegiance or protectorate of all of the same class.

The *Ghoorooks* denied the truth of this assertion. It was perfectly true he was top-knotted, the same as the Polanders; he held the same opinions, but he did not belong to them. It was the misfortune of his breed to live between the *Polander* and the *Serai-ta-ook*, and hitherto they had been

in the position of the grain between the two mill-stones. They had to be ground. But this Congress was held to remedy all grievances, and his breed now looked for their rights. They belonged originally to the Serai; and although they may have complained of their rule, they *did not* ask the intervention of the *Polander*. He came unmasked, and swamped their class. They were grateful for the intervention of the Dorking and Crève-cœur, but if they did not now finish their work by putting them in a position to show committees of what they were capable, they would leave their work half finished. They knew they were not a strong class, but they did ask for a separate classification, although they might only exhibit with the Serais.

The *Game Bantam* said, he felt at home with the Crève-cœur and Dorking. He also shared with them all the admiration of the courage of the Serai. He had taken arms, not because he was of much importance, but because he felt the cause was just, and because he had more faith in arms than diplomacy. He belonged to the second-rate classes, and he would tell the Dorking and Crève-cœur, that they had no idea of the annoyances to which those of his class were exposed from their neighbours of the first-class. Their entries were laughed at, and if they sent any one to represent their interests, he was excluded, for all sorts of vexatious reasons, and treated with marked neglect. He, for one, was determined to submit to this no longer, and he would rather cease to exhibit. He would only refer to the late contest between himself and the Austrian about his representative.

The *Austrian*, thus appealed to, rose immediately, and the extraordinary appearance we have before noted was again distinctly visible. With an air of hauteur, he turned first to the Crève-cœur, and then to the Dorking, and as he turned, his plumage assumed the hue of each breed. He said, these two powers were unquestionably right in the course they had taken, and he begged to congratulate them on that, and on their success; then, suddenly erecting a top-knot, and turning to the *Polander*, he said, that he could not find language to express his admiration of the noble stand he had made in vindicating that which was unquestionably his duty. The poultry world, he added, might depend, that those whose interests he represented would follow the same straightforward course that had hitherto guided them in all the difficulties of the late exhibitions.

The *Dorking* said, he had listened with attention to all that had been said. He represented traders, and wished to have common sense and business principles carried out in the decisions. All that had been said amounted to nothing. Arms had been taken because there were certain grievances, and would not be laid down until they were redressed. All classes were suffering from this state of antagonism, but he would much rather exhibitions stopped for ten years, than yield one jot of what he thought right. He had had a good trade, and had taken many prizes in spite of all difficulties, he, therefore, warned all parties he was not disposed to make concessions.

The *Black-breasted Game* hoped that active operations would be continued until everything was positively settled.

The *Serai-ta-ook* said, some speakers had seemed to think only his class was concerned; he believed every class was equally interested.

With this the first sitting terminated.

ODDS AND ENDS FROM MY NOTE BOOK.

TEMPERATURE AT WHICH IT IS DESIRABLE TO KEEP EGGS FOR HATCHING.

WE are told in most books to keep eggs for hatching closely covered with bran and at a uniform temperature; but no other eggs hatch so well as those in a stolen nest, exposed to the alternation of temperature during the day and night, and warmed frequently by the hens laying additional eggs. Query—Is the artificial or the natural plan the better one?

EGGS RECENTLY LAID DO NOT HATCH SOONER THAN OTHERS.

I have recently been hatching some Swan, or Chinese

Geese, under a hen, who was kept waiting two days for a sufficient number of eggs. When they were given her one had just been laid, and was quite hot; it was dated, and *hatched on the same day* (Feb. 21) with the others, some of which were a week old. The brood came out on the 28th day of sitting; but when sat on by the Goose they are usually not hatched until the 34th or 35th day.

PROPORTION OF MEAL AND HUSK IN LIGHT AND HEAVY OATS.

Oats weighing 30lbs. per bushel contain 16lbs of meal and 14lbs. of husk. Those at 36lbs. per bushel contain upwards of 20lbs. of meal and less than 16lbs. of husk, and as the weight increases the proportion of the meal to the husk is often greater. Query—Is not the best always the cheapest?—W. B. TEGETMEIER.

HAMBURGH POLANDS.

I AM glad to find, in the number of 12th of February, that Mr. Baker has doffed his incognito in reply to my query, as I can now understand with whom I communicate. By Mr. Baker's letter, he admits he can give no proof of birds being brought from Poland, but positively states the breed came from Hamburgh, although he thinks the birds now to be had superior. From this opinion I must beg to differ, having had the breed for a longer time than twenty-five years. In the valuable qualities of the breed I entirely agree.

Mr. Baker says, "That twenty-five years ago, as our books will prove, they were called *Polands*." Perhaps Mr. Baker will be good enough to inform us in which of our books the statement is to be found. I am not aware of any, but can give reference to the contrary. Two of our oldest works, viz., *Monbray* and *Dickson*, call the Poland the White-crested Black, by which name that breed was generally known. Mr. Baker mistakes my motives if he thinks me an advocate for change of names. In common with Dr. Horner, I merely seek to *restore* the nomenclature to what it was for a century before that put forward by Rev. E. S. Dixon in 1848. If Mr. Baker will refer to his books twenty-five years ago, he will find my name largely there as a purchaser of water-fowl, but not of Poultry; for the reason, that Poultry fancy was not then prominent in London; and I had, in consequence, to get the birds I wanted from France and Holland, even so late as 1842, as the eighth edition of *Monbray* certifies of the Bolton Greys, that they were, "apparently, the crack breed of their vicinity, but entirely unknown in the metropolis."

I feel obliged by Mr. Baker's concluding remarks on the the rules for Judging Poultry put forward by me, as it was precisely with that view they were framed.—R. P. WILLIAMS.

WHERE IS FASHION NOT A DESPOT?

"MARY, my dear," said a staid-looking man to a merry girl, "why do you wear such a ridiculously small bonnet?"

"It is the fashion, Father."

"I wish you would not think so much of *that*; show more strength of mind and character; judge what is right, and adhere to it."

"But, Father, I am not sure singularity is to be desired."

"Perhaps not; but having once arrived at a sound conclusion as to comfort and respectable appearance, you may safely confine yourself to them."

The girl paused a minute, as if in thought, and then said, "Father, may I ask you a few questions?"

"Yes," was the reply.

"And you will not be angry?"

"Not if they are proper ones."

"Do you mean to exhibit your Poland Fowls?"

"No," said the Father.

"Do you think the bearded are better layers than the others?"

"I do not think they are," said he.

"You know, Father," continued the laughing girl, "you said you thought the old cock perfect, and that you would never give him up; but when your friend said, day after

day, that no one now kept birds without beards, although you resisted for some time, you at last said, you thought you *must* give way, and the old favourite was given up for a bearded successor. Now, I call *that* fashion. You were well suited with the others; they were as good layers as these, and, speaking with all respect——"

"Which you might forget in the heat of your argument," interrupted the father, "therefore we will drop it."

POULTRY EXHIBITION AT WELLINGTON, SHROPSHIRE.

THIS meeting took place in the new Town Hall, on February 26th and 27th; and although various rumours were afloat that scarcely any of our principal amateurs declined competing, we certainly did not anticipate so perfect and well-arranged an exhibition. It is equally certain, that never before, in Shropshire (noted as it has been for its poultry shows), was there any previous exhibition in which ALL poultry (throughout *every* class) could vie with the one just concluded. Indeed, the task would have been fruitless to find a *really indifferent* pen, the generality of the birds being those that had recently been successful at different meetings; and we were credibly informed, that not less than *sixteen* pens of poultry were entered on the lists that had, during the year 1855, secured for their fortunate owners prizes, in the shape of silver cups, at one exhibition or another. At the onset, the prizes proposed were exceedingly liberal in amount, but from the extraordinary excellence of the entries, and the well-known repute of the competitors, the munificence of the advertised prize-list received a most well-advised ADDITION in seven large Silver Cups, to be awarded to the most successful pens in the principal leading varieties. Of these cups we will say but little, though thoroughly deserving of our highest commendation. They were intrinsically worth about six pounds *each*, besides being quite modern, and were placed in an empty pen for public inspection; the general opinion being, they were far superior to those usually offered.

Of the indefatigable secretary, Mr. T. W. Jones, we must admit it is only very rarely we have met with his equal—always at his post, courteous and affable to every one, the final success of the undertaking was *entirely* attributable to his uncompromising perseverance. It must also not be forgotten, that the responsibility of the whole proceeding naturally entails an amount of both mental and bodily personal exertion that few would dare to encounter. It is somewhat remarkable, that only three pens were unoccupied out of the whole number entered, viz., 222 pens. The condition of the birds, as a whole, was most superior; but we easily recognised, on the contrary, by reference to the catalogue, various pens that were suffering from the most extreme debility, the never-varying consequence of too frequent exhibition, and the inevitable excitement and injury of over exertion. When it is considered, that even fatal consequences so frequently ensue from this cause *alone*, and that the constitution of the fowls, however well-attended, must suffer irreparably, it naturally becomes a matter of surprise, that any exhibitor should subject himself not only to the probable pecuniary loss of valuable specimens, but still more *certain* disappointment of obtaining healthy progeny, if this merciless practice is continually persisted in.

The *Spanish* class were both extensively and well represented; Captain Hornby's cup birds being shown in very superior condition, whilst various others were well worthy of the high commendations bestowed upon them. In *Grey Dorkings*, the highly reputed stock of W. Wright, Esq., of Wednes, secured "ALL the honours." The cup birds were especially deserving of notice.

A gentleman, who "*had purposely travelled from London with the intention of claiming the best pen*," offered one hundred pounds for the first prize pen, but his offer (though repeatedly made) was not accepted; the bidder was, therefore, compelled to content himself with the purchase of several other pens, and the successful ones still remain the property of Mr. Wright. It will be seen, by reference to the prize list, that the success was attended with a most severe competition. The condition in

which these fowls have been hitherto, and are *still* shown, is very remarkable, and strongly bespeaks the great care and attention that must be devoted to them.

A. Gueldard, Esq., of Kendal, took the cup for *Cochins* with his celebrated birds, but closely pressed by the fowls of Mr. T. Chatterton, of Islington, Birmingham. There were some excellent white *Cochins* shown in the class for any other variety.

All the *Game* fowls were decidedly superior, excepting the "Whites and Piles;" these were, perhaps, the very worst class throughout the whole exhibition. We never saw so closely contested a "run for a cup." Many pens of *Game* were claimed, and at tolerably high prices.

Perhaps so good a show of *Hamburgs* as those at Wellington have rarely been placed before the public. The rivalry rested chiefly among the poultry of Messrs. Chume, Atkins, Worrall, Archer, M'Cann, and Jones; besides these, were numbers of others of high standing as to former achievements, but now presented in so deplorable a condition, that not the slightest possible chance of success could be hoped for. From one yard only, we especially noticed three different pens, hitherto exhibited in beautiful health and plumage; but *here*, the cock in one pen was actually incapable of standing; another had a diseased ear-lobe and wattles of most extraordinary character (presenting to the eye the EXACT resemblance of a decayed and mouldy Orange, and of the most fetid odour); whilst the third cock was all but perfectly black in the comb, and it had become so emaciated that it was "as light as a cork," and moved with evident pain and difficulty. By the extreme care bestowed on it for the three days it remained at Wellington, the latter bird seems likely to recover (if its owner perseveres in a similar course); but the others seemed quite irrecoverable, and would not rally at all even under the most stimulating treatment. We mention this incident, because the birds, naturally, are far superior to most we have met with; but we must declaim strongly against the absolute *cruelty*, as well as folly, of sending poultry reduced to the "last extreme of prostration" to compete with those that have been carefully attended, and not hitherto subjected to a series of trials so merciless and unfeeling. We again repeat, it is quite impossible to exhibit fowls at EVERY show (in some cases actually travelling from one to the other, and remaining an intermediate day or so almost crippled in a small hamper, and unsupplied with food, or water!) without certainly incurring the result we have thus feebly portrayed.

The *Golden* and *Silver* *Polands* have not ever been equalled at any Poultry Show in England. Eighteen pens of most beautiful birds competed, ALL of most excellent quality. The result was, it involved a task on the Judge by no means a sinecure. That gentleman wisely abstained from raising any invidious feeling among the competitors, by simply awarding the two premiums, and then highly commending the *whole* class. A most extraordinary pen of *Silvers*, the property of Mrs. Chas. Coleridge, of Eton, Windsor, took the cup; the second honour falling to the fowls of the same variety belonging to G. C. Adkins, Esq., of Birmingham. To a poultry amateur, the inspection of this class of birds alone was a treat that well repaid the trouble of a long journey.

Of *Turkeys*, three pens only competed, the winning pens, when brought to scale, weighing respectively fifty-seven and fifty-five pounds the three. When the advanced period of the season is considered, this weight is very remarkable.

The *Ducks* are not worthy of particular mention. In the extra class no prizes had to be awarded, but many interesting specimens were shown.

The attendance of the aristocracy was good on the day of opening to the public, but we cannot conclude our brief remarks of this really interesting meeting without the expression of *astonishment*, that the inhabitants of *Wellington* itself seem so little inclined to support their annual Poultry Show, either by their personal subscription or attendance, more particularly when it is considered how many visitors are attracted from distant localities, and the improved amount of business thus temporarily obtained. We have great pleasure in stating, all the fowls were repacked, and on their return homewards, within three hours of the close of the exhibition. Nor can we speak too highly of the great

care and attention bestowed on them during the time they remained there. These are items especially important to prospective advancement, and, no doubt, the fact of their being so will be most conspicuously apparent at future meetings of this Society, in the greatly increased amount of entries, more especially from a distance.

We gave the List of Prizes in our last number.

COPAIBA AS A REMEDY FOR ROUP.

I HAVE been much interested with Dr. Horner's paper on this subject in a recent number. He has, however, overlooked several modes in which this article may be effectually administered to fowls without any annoyance from contact or smell. I will submit two or three for his commendation that can be readily prepared by any chemist.

The alkaline solution owes its efficacy to the resin of *Copaiba*, as it contains very little of its essential oil. If it be admitted that the resin is the active principal in the cure of roup, it is much easier given in the form of pills, obtained by evaporating any quantity of the balsam down one-half, and dividing the residue into five grain pills, one to be given three times a day. In ordinary practice, the balsam itself is, I think, generally admitted to be more efficacious than any preparation of it, and I see no reason why this should not hold good with regard to fowls. Capsules would be the readiest means of giving it to all birds, except Bantams. They are not always in the form of "little gum-bags;" the best are made of membrane, by Messrs. Evans and Lescher, of London, who guarantee the quantity of *Copaiba* they contain. One night and morning would, I think, be sufficient. The balsam could also be given in pills. Take of *Copaiba* two drachms, White Wax one drachm, melt together, and add of powdered *Cubeb*s three drachms. Mix thoroughly, and divide into three dozen boluses; one three times a day would do.

Many attach great value to the essential oils of *Copaiba* and *Cubeb*s, and Dr. Horner says "their efficacy was marked." These oils can be readily administered in pills.

Take of Essential oil of *Copaiba*, 25 drops.

" Essential oil of *Cubeb*s, 25 drops.

" Licorice root in powder, 50 grains.

" Magnesia, 50 grains.

" Treacle sufficient (about half-a-drachm) to form a mass; divide in ten boluses, and give one twice a day.

The doses given above are all smaller than those stated by Dr. Horner, as I think that moderate doses, repeatedly given, have a better effect than one larger one; for instance, I should imagine that a teaspoonful of balsam *Copaiba* (a dose for a man) would act as a purgative on a fowl. On the same principle, that "water-patients" sniff up cold water for a cold in the head, anything that tends to free the nostrils is good for roup-y birds, and no doubt the solution of *Copaiba*, with Potash, would cause the fowl to sneeze. Some, however, whose love for their feathered friends is not very strong, would not like to be near. Roup-y discharge "flirted" in one's face, saturated solution of alum, &c, in one's eye, and both on one's clothes, have annoyed me at times. I may, however, be both fastidious and clumsy, so I have lately physicked my fowls in solid forms, in roup-y cases, contenting myself with cleaning the nostrils well, and bathing the whole head with warm water. Jalap is a favourite remedy with me as well as the learned doctor; "a bolus of it, the size of a filbert, or nut," is, however, an indefinite quantity. I never give more than five grains made into a pill with water, but sometimes repeat the dose the second night. Castor oil is also a capital medicine for fowls.

If any of your readers try the *Copaiba* for roup, I hope they will favour us with the result, and in what dose and form they gave it.—M.

OUR LETTER BOX.

PROFITABLE PIGEONS FOR A TOWN.—"I have a much larger quantity of food than my poultry can consume, and I am very desirous of keeping a few Pigeons, which could feed with them, and cause but little trouble. I am desirous, therefore, to know in what breed are the advantages of

good breeders, large size, and suitability for a town, combined.—E. F.”

[If you lived in the country, we would advise you to keep the common *Blue Rocks*. It is not a large, but it is a profitable, bird. For a town, the common *Blue Dragon* is the best bird. It is hardy, and a good breeder; it is also a good table Pigeon.]

BREEDING RED-DUN GAME FOWLS.—TUFTED GAME FOWLS.—“I have a *Red-dun Game* cock, and wish to breed some *Red-duns*, but cannot meet with a hen pure bred. Can you tell me what other coloured hen would bring a clear *Red-dun*? I should mention that the cock hardly shows sufficient *dun* in his plumage. I have bred from black and brown-red hens, but do not get them clear in colour.—Is it proper for a *Game* cock to have a small crest, or tassel, just behind the comb?—W. SEVERN.”

[In all breeding for colour you must mate the bird of the hue you desire with one as nearly approaching to it as possible. The parent must then be put to the produce, son or daughter, and after to the grandson or daughter. You will thus, every year, get more of the blood you wish for.—It is neither necessary nor desirable that a *Game* cock should have a tassel or Lark-crest. There was such a breed in repute some years since, but it is now almost lost.]

GOOSE LAYING MONSTER EGGS.—“G. M. has a greyish-buff Goose, three years old, which, with another Goose and Gander, have the range of a grass field, and are fed on oats. The said Goose lays a double or treble yolked egg, 12 ozs. in weight, or a soft egg. She has laid many of these monster eggs. Now, can she be induced to lay *reasonable* eggs from which the breed can be kept up?”

[The enlarged eggs depend on an undue activity of the ovarian system, by which they are developed with too great a degree of rapidity. This excitement, probably, arose from, and, at all events, is kept up by, too great a supply of nutriment. If the Goose is not supplied with any corn, and allowed to graze merely, in all probability the eggs produced will be of a natural character. Should, however, a small supply of corn be deemed requisite, I should prefer a very small quantity of barley, as being less nutritive and fattening than oats. Recently, one of my Swan-geese began to lay every day; but the shells were thin, and the eggs usually broken. On withdrawing the supply of corn, she laid perfectly-formed eggs as usual, one every other day, and has continued to do so for the last six weeks, having only a small feed of barley daily.—W. B. TEGETMEIER.]

DRAKE WITH DISEASED THROAT (A. L. P.).—There was no disease in the windpipe sent as far as could be ascertained in the dried state in which it was received. Some other structure of the neck must have been affected. Is it not possible that the bird might have received some injury? Under any circumstances, we should think the complaint very unlikely to recur.

PLUMAGE OF BLACK GAME FOWL.—FEEDING FOR EXHIBITION.—“Would you inform me whether *Black Game* fowl are allowed red in their hackles? Also, whether their legs should be the same colour as *Black Bantams*? What is the best food for fowls before going to an exhibition?—CHATTERER.”

[*Black Game* fowls should be entirely black; but we do not know of any class confined to them. They are usually blacks and brassy winged. If a bird was shown as a black, and had a coloured hackle, it would be disqualified. The colour of the legs does not signify, provided cocks and hens are exactly similar. Before an exhibition, they should be well fed on soft food, and, if possible, allowed to run as usual. Oatmeal is the best, and it may be slaked with milk.]

LONDON MARKETS.—MARCH 10TH.

COVENT GARDEN.

The rates of demand and supply remain much about the same this week, with the exception of a downward tendency in the *Potato* trade, there being a remarkable heavy supply of inferior descriptions, both coastwise and by rail, prices having receded 10s. to 15s. per ton. Cornish *Broccoli* has not come to hand in such large quantities, but continues of excellent quality. Importations from the Continent include *Asparagus*, *Radishes*, *Coss* and *Cabbage Lettuce*, as well as large parcels of inferior *Apples*. The present condition of the weather being very favourable for the transit of the former description of produce, they reach us in excellent condition.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s
„ dessert	6s. „ 10s.
Pears	8s. „ 12s.
Pine-apples, per lb.	8s. „ 10s.
Foreign Grapes, per lb.	2s. „ 3s.
Foreign Melons, each	2s. „ 4s.
Oranges, per 100	4s. „ 10s.
Seville Oranges, do.	6s. „ 12s.
Lemons	6s. „ 12s.
Almonds, per lb.	2s. „ —
Nuts, Filberts, per 100 lbs.	50s. „ 60s.
„ Cobs, ditto ..	60s. „ 70s.
„ Barcelona, per bushel	20s. „ 22s.
Nuts, Brazil, per bushel	12s. „ 14s.
Walnuts, per 1000 ..	9s. „ 12s.
Chestnuts per bushel ..	15s. „ 24s.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d.
„ Red, per doz.	2s. „ 4s.
Cauliflowers, per doz.	4s. to 6s.
Brocoli per bble	1s. „ 2s.
Savoy	1s. „ 2s.
Greens, per doz. bnch.	4s. „ 6s.
Spinach, per sieve	— „ 4s.
French Beans, per hundred	3s. „ 4s.
Carrots, per bunch	4d. „ 6d.
Parsnips, per doz.	6d. „ 9d.
Beet, per doz.	1s. to 1s. 6d.
Potatoes, per cwt.	3s. „ 6s.
Onions, young, ditto.	1d. „ 2d.
Turnips, per bunch.	3d.
Leeks, per bunch	2d. „ 3d.
Garlic, per lb.	6d. „ 8d.
Horseradish, per bundle	1s. 6d. „ 2s. 6d.
Shallots, per lb.	6d. „ 1s.

COVENT GARDEN—Continued.

Lettuce, Cos, each	6d. to 8d.	Rhubarb, per bundle ..	6d. to 1s.
„ Cabbage per doz.	2d. „ 3d.	Cucumbers, each	1s. „ 3s.
Endive, per score ..	1s. 6d. „ 2s.	Mushrooms, per pot ..	1s. 6d. „ 2s.
Celery, per bunch.	9d. „ 1s. 6d.	HERBS.	
Radishes, Turnip, per dozen bunches	6d.	Basil, per bunch	4d. to 6d.
Water Cresses, ditto ..	6d. „ 9d.	Marjoram, per bunch ..	4d. „ 6d.
Small Salad, per punnet	2d. „ 3d.	Fennel, per bunch ..	2d. „ 3d.
Artichokes, per lb.	2d.	Savory, per bunch ..	2d. „ 3d.
Asparagus, per bundle ..	5s. „ 8s.	Thyme, per bunch ..	2d. „ 3d.
Sea-kale, per punnet ..	2s. „ 3s.	Parsley, per bunch ..	2d. „ 3d.
		Mint, per bunch	2d. „ 4d.
		Green Mint	6d. „ 8d.

GRAIN.

FRIDAY, MARCH 7.—The arrivals are still very unimportant of all Grain from all quarters. English Wheats find a trade at Monday's decline, and the general tone of the market is improved. Fine Barley brings very full prices. Oats are held for quite as much money, but this trade is not active. Beans, Peas, and other Grain, bring prices no less than the quoted currency.

WHEAT, Essex and Kent red, new	59s 64s	—s, fine 66s	—s —s
Ditto ditto white, new	63s 72s	—s, fine 73s	—s —s
Foreign, red	67s 75s	—s, fine 76s	84s —s
Ditto white	72s 85s	—s, fine 85s	89s —s
BARLEY, distilling	35s 36s	fine 36s	37s
Malting	38s 39s	fine 39s	40s
MALT	70s 73s	fine 73s	76s
BEANS, pigeon	50s 52s	—s, new 49s	50s —s
Ticks for splitting	38s 41s	—s, new 37s	39s —s
Harrow	47s 50s	—s, new 42s	45s —s
OATS, English feed	20s 21s	fine 22s	23s
Scotch potato	29s 30s	fine 30s	32s
Irish feed white	20s 21s	fine 21s	22s
Ditto black	21s 22s	fine 22s	23s
Foreign feed free	20s 21s	fine 21s	22s
Poland or hrew	23s 24s	fine 24s	25s

HOPS.

BOROUGH MARKET, FRIDAY, MARCH 7.—The demand for Hops during the past week has somewhat improved, especially for choice qualities, and the general currency continues firm at about recent quotations.

Sussex Pockets, 56s. 80s. to 90s.; Weald of Kents, 60s. 84s. to 95s. per cwt.

HAY AND STRAW.

Clover, 1st cut per load	120s. to 130s.	Meadow Hay	110s. to 130s.
Ditto, 2nd cut	90s. „ 115s.	Straw, Hay	30s. „ 33s.
		Ditto, machine	28s. „ 30s.

POTATO.

SOUTHWARK WATERSIDE, MARCH 3.—The arrivals, both coastwise and by rail, have been large during the past week, and trade extremely dull, at lower rates.

Kent and Essex Regents, 70s. to 80s.; ditto Shaws, 80s. to —s.; York Regents, 65s. to 90s.; Lincolnshire Regents, 60s. to 70s.; Wisbeach and Cambridge Regents, 60s. to 75s.; Bedford Regents, 70s. to 80s.; ditto Shaws, 80s. to 85s.; Norfolk Regents, —s. to —s.; ditto Whites, —s. to —s.; Scotch Regents (East Lothian), 70s. to —s.; ditto (Red Mould), 80s. to —s.; ditto (Perth and Fife), 50s. to 65s.; ditto (North Country), —s. to —s.; Dahlias and Rattlers, —s. to —s.; Blues, —s. to —s.; Orkney Reds (East Lothian), 55s. to 60s.; ditto ditto (Red Mould), 66s. to —s.; Scotch Cups (Perth and Fife), 40s. to 55s.; ditto (North Country), 30s. to 35s.; Irish Kemps and Clusters, 50s. to —s.; ditto White Rocks, —s. to —s.; ditto common Whites, —s. to —s. per ton.

POULTRY.

We have little variation to note this week. There is still an average trade and a moderate supply.

Large Fowls 6s. 6d. to 7s. 6d. each.	Teal	1s. 9d. to 2s. each.
Smaller do. 4s. 6d. to 5s. 0d. „	Snipes	1s. 9d. to 2s. 3d. „
Chickens. 3s. 9d. to 4s. 6d. „	Plover	1s. 9d. to 2s. 3d. „
Goslings	Pigeons	10d. to 1s. „
Ducklings 4s. 6d. to 5s. 0d. „	Rabbit ..	1s. 6d. to 0s. 0d. „
Wild Ducks 2s. 3d. to 2s. 6d. „	Wild Ditto ..	11d. to 1s. 1d. „
Widgeon. 1s. 6d. to 1s. 9d. „	Larks	3s. 0d. per doz.
Woodcock		

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WEEKLY CALENDAR.

D M	D W	MARCH 18—24, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
18	Tu	PRS. LOUISA BORN, 1848.	29.730—29.667	48—34	W.	02	9 a 6	8 a 6	5 34	12	8 8	78
19	W	Geotrupes politus.	29.922—28 877	55—30	S.W.	01	6	9	5 48	13	7 50	79
20	Th	Sun's declinat., 0° 2' N.	29.824—29.735	58—37	S.E.	—	4	11	6 0	14	7 32	80
21	F	GOOD FRIDAY.	29.391—29.107	45—34	N.E.	02	2	13	rises.	☺	7 14	81
22	S	Ægialia globosa.	28.908—28.882	36—33	N.E.	13	v	14	7 a 21	16	6 55	82
23	SUN	EASTER SUNDAY.	29.180—29.025	38—27	N.	—	57	16	8 32	17	6 37	83
24	M	EASTER MONDAY.	29.301—29.283	38—25	N.W.	—	55	18	9 45	18	6 18	84

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 50.5°, and 32.3°, respectively. The greatest heat, 69°, occurred on the 20th, in 1836; and the lowest cold, 16°, on the 20th, in 1845. During the period 114 days were fine, and on 82 rain fell.

HORTICULTURAL SOCIETY.—11TH MARCH.

This was an influential meeting of the Fellows of the Society, with the Marquis of Salisbury again in the chair, but little, or nothing, in the way of real business was done. After the above Report was read by Mr. Godson, Q.C., Chairman of the Committee of Investigation, Colonel Challoner, one of the Council of the Horticultural Society, rose to propose that this Report should be referred back to the Council, to consider on the possibility, or practicability, of carrying out the recommendations of the Committee. The Report was not in the hands of any of the members till that morning, and most of them had only heard it just read, therefore, there was no time yet for considering what was best to be done. He, the gallant Colonel, quite agreed with the Committee, that the Garden of the Society should not be "sacrificed without some overwhelming necessity;" but, indeed, "the overwhelming necessity" stared in the face of the Council, when they found that the expenses of the Garden and Shows were more than the annual income of the Society; and the Committee confess that, after looking "minutely into details," they found "that the Council has already reduced the expenditure as low as the circumstances of the Garden will permit." He was not sanguine about the success anticipated by the Committee; and he repudiated the idea of a once powerful Society, though now on their last legs, accepting the sacrifice of Dr. Lindley's salary.

All the speakers who followed, on either side, concurred in this view about Dr. Lindley's offer to forego his salary of £500, for one year, while the experiments proposed by the committee were being tested. Several members then addressed the meeting on the side of the Council, but nothing of particular interest was elicited by these discussions, save one point, and that point seemed to turn the current of our thoughts into a new channel, and it strikes me this channel is now too deep and too wide, and too well fortified on the other side, for the men of progress to breach over it. It seems that, by our charter, we have no power to manage the affairs of the Society, either by committees, or by resolutions come to by a majority of members, such as we have been driving at all this time. The Council for the time being was said to have the sole management in their own hands. They could thus sell the garden, and all that is in it, without let or hindrance. Instead of doing that, however, when they came to the end of their tether, they "courteously deferred" to our feelings, called a meeting, and submitted the best plans they could think of for our consideration; but although we "considered," and appointed a Committee of Investigation, we cannot act upon the report of our Committee without the sanction of the Council.

If all this be true about the charter, and I suppose it is—as on a show of hands the Council had a large majority, to allow them three weeks to "consider" the present Report. This will bring us down to that very day on which it is lawful, by common usage, for one man, or set of men, to make April fools of as many as will obey their

bidding.—Twenty-four hours would be sufficient time to digest this report, which, after all, is not more tough than plain bread and butter; and to require three weeks for the work of twenty-four hours is simply working against time, in order to make the arrangements for the summer shows a matter of impossibility, and thus, by a side wind, to get rid of the shows for one season, which will be equivalent to giving up the gardens at once, as the Council proposed to do in their first Report.

Instead of proving any mismanagement on the part of the Council, the Committee of Investigation have entirely exonerated the Council from all that might attach to that body by hear-say. Mr. Godson, the Chairman of the Committee, told us, in his address, that he had five Appendices to the Report, which would be too expensive to print, and too voluminous to read at a sitting like this; that the pith of the labours of the Committee would be found in these Appendices; that in one Appendix, clear statements and figures would prove, that, during the last ten years previous to 1854, the profits of the Shows, after clearing every expense, were nineteen thousand and odd pounds, or nearly two thousand pounds a year; that in another, would be seen the expenses of the garden last year was one-third more than they were in 1859; but the inferences of bad management that might be drawn from these statements was provided against, in the Report of the Committee, when they say, that the "Council has already reduced the expenditure as low as the circumstances of the garden will permit." What matters it, then, were the clear profits ninety thousand pounds, instead of nineteen thousand? Recollect, I am not giving any opinion of my own now, but merely analyzing the Report as it stands before me, which is, on the whole, a very singular production to one who knows of all the reasons which gave it birth. Here we have a world-wide-famed Society falling into decay; the cause of this decay has been laid down at the door of mismanagement on the part of the Council and Vice-Secretary, by a section of the Fellows of the Society, who cried loudly, for some years past, for a general reform in the management. The Reformers called loudly for a Committee of Investigation; they got one, and chose their own men; moreover, they tell us, that the Council, and all the officers of the Society whom they summoned before them, "imparted every information which might aid the inquiry," so that no select committee ever had an easier opportunity of prosecuting an inquiry, or a better chance of arriving at the truth; but the result is, that "the Council has already reduced the expenditure as low as the circumstances of the garden will permit." The Council may, therefore, sell the garden to-morrow, and take credit to themselves for doing so, under this sanction of their economy and good management, by a committee of those who were formerly most opposed to their proceedings.

We shall certainly lose the garden through the politeness of the very men whom we appointed to save it for us. Heaven preserve us from our friends! It is possi-

ble, however, that on the principle of one good turn deserving another, the Council may be equally polite, and assent to an experimental show or two, just to please the "Committee of Investigation." But if the Council should be otherwise, and spurn the idea of being obliged to do otherwise than they would do of their own accord, what then? Why, the garden "must go for it," to be sure, as the Council first proposed, or rather as it was proposed for them.

But we must rest on our oars till the 31st of March, when we shall know how the Council propose to deal with the recommendations of the Committee. It is not true, however, as the Committee assert, that "a Horticultural Society, without a garden, would be like a crew of sailors without a ship, or an army without weapons," for our unhappy experience goes to prove the very contrary. We have been a freshwater crew, it is but too true; but the ship proves to have been a millstone around our necks. As Loudon said, in 1830, a Horticultural Society has no more use for a garden than the Society of Arts has for a workshop; or, as we may say at present—in reference to the English and Scotch Agricultural Societies, who successfully stimulate and disseminate the knowledge of their craft without farms, practical and experimental—no Society should undertake to do a single thing which could be done just as well by private enterprise, stimulated by liberal awards from the coffers of the Society. But, for us, it is now too late to think about these maxims. We have a garden, a valuable garden, and a great deal of our property is sunk there; therefore, if it could be managed at all, the very last thing we should think of is to give up the garden. Depend upon it, the Committee are perfectly in the right when they say, that "with the garden the Society itself must stand or fall;" and the Council would do well to consider this as the hand-writing on the wall, before they take their stand on a legal construction of the charter, and so do away with the garden, as they first proposed. Many recommendations of the Committee are well worth their dispassionate consideration. Nothing could be more courteous to all parties than the tenor of their report; but to hit hard, or to thrust home to this or that quarter, is not the right way to influence men of gentlemanly bearing in these days.

His Grace the Duke of Northumberland offered nine seats in the Council-room to this Committee, and now they only desire five seats for the most practical of the body. Let them have the five seats, by all means; let Dr. Lindley be relieved of the head-gardener's place; and, as he is unpopular with the exhibition gardeners, relieve him also from the superintendence of the shows; but let us not lose the valuable heads and the long experience of Mr. Gordon and Mr. Thomson. I am old enough to know that we shall never be able to fill their places again; they never had a fair chance yet. I quite agree with Mr. Veitch, who was the best speaker at this meeting, that we want an "infusion of new blood;" that we live in "go-a-head times;" that we have "broken down like the mismanagers of the war," and much through the same causes, but under a different order of things. I am quite sure we may rely on the exertions and discretion of our generals; but let one of them be commander-in-chief; above all, let us respond to the "earnest wish of some of the best friends of the Society," put our hands in our pockets and pay off a large portion of the millstone.

D. BEATON.

[We purpose giving the Report of the Committee, and other relative information, next week.—ED. C. G.]

NEW SCYTHE.—We are very glad to be informed that Mr. Boyd, whose *Self-adjusting Scythe* is the best yet invented, has now brought forward, what might be called,

"The poor man's Scythe;" but which he has patented under the name of *The Vulcan Scythe*. Its object is to provide for the garden-mower, and the harvest-labourer, a Scythe, at the cheapest possible rate, ready bent or cranked to the angle required by the user, so that it may at once be fitted to the handle without the help of a blacksmith. As soon as we have tested it, we will again mention this Scythe.

RETARDATION AND PROTECTION OF BLOSSOMS.

I BELIEVE it will be found correct that I was the first to urge the importance of this practice, and that, too, in these pages. Like root-pruning by system, however, which I pointed to, and highly recommended about twenty-six years since in Loudon's Magazine, I got scoffed at occasionally, and it was some time, in both cases, before I could get certain practical men to recognise the doctrine. The first of these practices has now hundreds of advocates, and among them celebrated nurserymen, to whom it has proved of eminent service in their attempts to establish a dwarfing system in fruit-trees. Retardation is, however, as yet young, and half ashamed to show its face; nevertheless, I shall by no means blush whilst repeating my recommendation.

There can be no question of the benefits derivable from the practice, when we take into consideration the character of the objects we seek to attain thereby, and the nature of the climate we have to deal with. It is tolerably certain, that we can throw any fruit-tree we choose at least a fortnight later by this proceeding; and that is a thing of some importance, as I will proceed to show. I will not now run over the old argument of endeavouring to prove, that as a principle, and taking the majority of seasons, the later any given kind blossoms, the better the chances of the blossoms setting. Surely, this is so obvious, that it must, on a little consideration, appear self-evident. It is rather to the great advantages accruing from the occasion of a greater amount of ground heat, and, by consequence, the impulse given to root-action, that I would wish to draw particular attention.

No sane person would, for a moment, doubt that it is better to have an active than a torpid root during the expanding period; or that increase of ground-heat does not facilitate root-action. If any one deem it a trivial affair, let him, in a hard frost, apply wet muleh, in a half-rotten condition, to a Peach, or other tree, on a south wall, placing the muleh a foot or more in depth, and covering the area of the roots with it, and watch the results. The mass of soil where the roots were situated would scarcely attain a temperature of 45° by the middle of May, whilst that of another, not covered, would be found, in all probability, between 50° and 60° by that time; indeed, ice would keep until April under the former. Thus, with unretarded branches, we should have an average air temperature, close to the wall, of from 65° to 70°; and deducting the root from the branch temperature, we have a balance of about 20° in favour of the latter! Talk of reciprocity, indeed! if this extravagant procedure would stand, why reciprocity might be for ever crossed from *The Gardeners' Dictionary*.

Thus much by way of illustrating the affair: there are those, however, who would rather accept ordinary practice without any course of reasoning; for this I blame them not, so long as they will be good enough to tolerate the ways of those who love to dig out Nature's hidden stores for themselves, or who, in ordinary language, "take nothing on tick." Well, then, here is practice for them: do not most really good gardeners love to apply a little warm material to early-forced Vines

with their roots outside? Or, what would be thought of any gardener affirming that Sea-kale, Asparagus, and such like, simply require heat at the crown, and that the body of the roots needed it not? Or, how would Pines succeed if we could contrive to give them a hot atmosphere, with the root kept as cool as possible? But it is needless to proceed farther; it must be obvious to every impartial person that Nature has established a law in the vegetable kingdom, that the temperature of root and branch, as a relative matter, is a thing of the first importance.

There is yet another phase in which to view the practice; it is this:—Is shading of the wood in itself alone considered a beneficial or injurious proceeding? This is somewhat untrodden ground at present; but, with my usual temerity, I must enter the argument. I once transplanted a Peach-tree of about twelve years standing; one which presented training for ten feet by nine of wall. This tree was removed in the last week of January, and the moment it was planted a sheet of canvass was tacked before it, projecting some six inches from the wall. This canvass was not removed until the tree was expanding its blossoms, and which, owing to the check and shade, was later, by far, than others near it; probably about the second week in May. Never did a transplanted tree thrive better, and it produced nearly a full crop of fruit that very summer, and fine fruit too. Now, I am persuaded, that much of the natural juices of trees are abstracted by intense solar light, with occasional high temperatures; and that, although a well-established tree may endure this; nay, although it may, under certain circumstances, benefit by it, yet the case is very different with a removed tree.

There can be little doubt that the practice of shading the mere wood of deciduous trees is a subject that has never yet received any attention worth noting; and I hereby invite the friends of progress in gardening to try their hand, and report on the results. It is extremely probable that the vessels beneath the outer bark, not being distended in a sufficient degree with the rising sap, become constricted, and the tree by gardeners termed "hide-bound;" and thus, when the root action commences, the upward course is impeded, and the tree, of course, assumes a shrunken or withered appearance.

Whilst on this subject, I may as well allude to "*protection*," as applied to fruit-trees; and, strange to say, the very same material which keeps out heat will also ward off keen frosts and withering winds. So it is not in changing the material, but in reversing the mode of applying it. It has been much disputed, whether this protection be not productive of more harm than good, and this, too, by some practical men, from whom I had expected better things. The debating this reminds me about the fuss I had about me, a few years since, when recommending guano-water. Several persons, at that time, applied to me for advice, as to whether it would prove beneficial; my constant answer was, Yes—to everything that requires manurial matter. This I coupled with a caution as to its great strength, and the necessity for much dilution with water. In a year after, some parties came to me bemoaning the loss of some pet plants, and declaring that they were assured guano was injurious.

Now, if any man fancies that his Apricots, or Peaches, in blossom, would prefer enduring a thermometer, on some unlucky night, of 12° of frost to one only 4° or 5°, I pity his judgment. I would hang anything up that would thus reduce the severity of the night. But if any person do this, and suffer his covering to impede the solar heat and light, when requisite, and his crops fail, let him enter his failure in his note-book under the head *neglect*, not mistaken principles.

For this reason, therefore, covering of all kinds should, as far as possible, be movable, although I have

proved, for years, that boughs of Spruce, &c., may be so fixed—when necessity compels their use—as to be of no damage. This consists, with me, in fastening a regular row along the top of the wall, causing them to project as a wide eoping. With this I stick a few in, here and there, very thinly; not mere spray crowded together, but branches. The difference between this and the crowding small spray is, that in the latter case there is about the buds an uniform gloom; but in the case of branches stuck in thinly, the sun, as it ascends and passes the meridian, darts his rays boldly through in a changeable way. And over espaliers, or dwarf standards, I have found it far better to stick in a few huge branches, rising above the tree, or bush, than to smother the buds with small spray close to them.

On the whole, then, I boldly avow, that I advocate still, as warmly as ever, both retardation and protection. I do not mean the retardation of free trade, and the protection of corn, for I am no great politician; but as applying to the conservation of the delicate blossoms of our superior fruits, which, being of a somewhat lively temperament, are but too apt to be excited to prematurely unfold their treasures, just as silly bees are but too often tempted to have an hour's rollick in a treacherous sunshine.

R. ERRINGTON.

THE VINEYARDS OF CALIFORNIA.—Mr. Buffum, in his speech in the California Assembly, wherein he proposed to exempt California wine from the provisions of the prohibitory liquor law, gave the following interesting statistics concerning the culture of the vine in that State:—"In Los Angeles county, the vineyard of California, there are already under cultivation as many acres covered with the vine as there are in the whole of the State of Ohio, the pioneer in the wine manufacture of the United States. In Los Angeles the number of bearing vines amount to 800,000, the number of acres under grape culture is 1,500, the quantity of wine which can be made to the acre is 400 gallons, the amount of capital invested in the grape culture 1,000,000 dollars, and the number of persons engaged in the various branches of the business is 4000. Thus, these 1,500 acres only under grape culture can produce 600,000 gallons of wine annually, which, at two dollars per gallon, will yield in this single district the annual income of £1,200,000. If there are in this State only 250,000 acres of land which can be brought under grape culture, they would produce 100,000,000 of gallons of wine annually, which, at one dollar per gallon, would yield the enormous annual revenue of £100,000,000."

DESULTORY GLEANINGS.

HAVING spent a few hours at the west side of London when I inspected the heating apparatus of the Messrs. Weeks, I think I might draw on my memory for a few things that may be generally interesting.

FORM OF GLASS ROOFS.—At the Messrs. Weeks', and elsewhere, I saw great varieties of these, but mostly confined to the principle of opening and sliding sashes, and thus attended with the bulky and the expensive rafter. The dispensing with rafters, and substituting strong sash-bars with wide squares of glass, might be well worthy the attention of those prominent hothouse builders who keep specimens of houses on their premises.

DISTANCE OF PLANTS FROM THE GLASS.—This matter regulates the whole affair of platforms, stages, and tables, inside of a glass-house. In a darkish lean-to house, and where heat enough is applied to cause the plants to grow, they will be sure to come weak and

drawn when placed at a great distance from the glass. When there is abundance of light, as in the large conservatory at Regent's Park, or in a span-roofed house, with glass all round as high as the standing position of the plants, provided a due portion of fresh air is given, the plants will not be at all drawn weak, though placed at a considerable distance from the glass. In a house of *Pelargoniums* at the Messrs. Weeks', the plants must have been some four or five feet from the roof, and yet it was impossible to find more compact, sturdy, healthy little specimens. In a large, wide house for commercial or mere plant-growing purposes in a garden, elevated stages are very desirable, as giving space for more plants than a flatter stage or platform would do. In the case of amateurs, however, and especially of ladies, this advantage is counteracted by great disadvantages. Only think of a lady having to climb and stretch over a lofty stage, to get at a desirable plant, and finding that however difficult the ascent, the descent is still much more difficult. Gardening would lose its charm to the half of our readers if they could not look at, examine, and attend to many of the wants of their floral favourites with their own hands. This pleasure will be greatly increased, therefore, when all necessary attentions can be given without either the assistance of a step-ladder, or the necessity of getting off the pathway. The best must be made of old houses and conveniences, but comfort and pleasure, as well as utility, may be thought of in new erections.

I went, lately, to see the stage in a lean-to greenhouse constructed on the *multum in parvo* principle, and certainly it would hold a great many plants, from twelve to eighteen inches in height, but how the plants were to be got at, without breaking the back of the operator, or breaking the roof glass, against which it must press, had never entered into consideration. Double the money, and more, had been spent, than would have been sufficient for a useful stage, on which fair-sized plants from three to four feet in height might have been grown. As combining elegance, comfort, and future economy in labour, I, therefore, recommend for all small houses intended for amateurs, low roofs and low platforms to match. Span-roofed houses are best for this purpose. A hipped-roof, however short at the back, is better than a lean-to, and thus the roof is kept lower than when all in one slope. For instance, here is a space fourteen feet wide to be covered by a glass house; there is no objection to have it span-roofed. Build a wall all round, except at the doorways, three feet in height, and have upright glass for other three feet. Let the rafters or sashes meet at the ridge, nine feet from the floor; have a two-foot shelf all round; a pathway from two-and-a-half to three feet wide all round, which will leave from four to five feet for the centre platform. The side shelf being two feet nine inches from the floor, the platform may be three feet; and this may either be a flat sparred table, or be divided into three or five shelves, the centre one being, in the case of five shelves, a foot or so above the front one on either side. More plants will receive greater justice in growing than on a level platform. There will be less cost in the level platform, it will be more easily managed afterwards, and for anything in the shape of a show house, it will be much more elegant, as, provided a row of nice stubby plants are set along each side of it, the pots and the bottoms of the plants of the rows behind are concealed. For a twelve-feet wide space, the front shelf and the paths may be narrower; but for that width, and for a space of nine or ten feet wide, it would be best to have one pathway in the centre, and a platform on each side. I have several times mentioned how efficiency and economy may be consulted in forming such platforms of earth covered with sand for setting the plants on. A description of a house at Hitchen

Nursery was lately given, where such an earth platform was cut out with earth shelves or steps, the highest being at the side-walls, and the lowest in the middle next the pathway, and, consequently, the farthest from the glass, but there was no *drawing* there, because, though at the greatest distance from the roof, there was also there the greatest amount of light.

MESSRS. VEITCH'S NURSERY.—MOORE'S PATENT LEVER GLASS VENTILATOR.—This is not the time, even had I the means, of giving a description of this celebrated Nursery, which is just next door to the Messrs. Weeks. To me, and many more, it has old associations. Many a very clever young man has had self-estimation much reduced by a quiet talk, for five minutes, with the late Mr. Joseph Knight, in the long passage, or corridor, that leads from the entrance to the houses and grounds behind. Few men possess the tact that gentleman had for exercising such strict discipline, with such firm quietness and thorough self-command. As a commercial establishment, and a school of improvement for gardeners, this nursery, under the ownership of the Messrs. Veitch, bids fair to rival and distance its former celebrity. The development of the bump of order is every where apparent. The rows of pots along the platforms are regulated to the veriest nicety; no irregularity, no out-juttings, here and there, to offend the eye that delights in straight and sweeping lines. Many of us forget how these minute matters give pleasure, or pain, to employers of refined taste. Perforated pots are used in the culture of Orchids, and thus all danger of clogged drainage avoided. Many of the houses looked gay even at this season, with variegated-leaved plants, such as striped *Pine Apple* plants, *Caladiums*, *Dracanas*, *Crotons*, &c. Several of the hardier houses were divided into squares, by rows of the *Flower of the Day*, *Golden Chain*, and other variegated Geraniums, which broke in upon the sameness, and produced a pleasing and orderly effect. Among hard-wooded plants a level outline was broken by a plentiful use of particular plants, elevated as starters upon pots. At the north end of the nursery two lean-to ridge-and-furrow-roofed houses have been erected, for keeping plants not quite hardy in winter, and growing Vines and other fruit-trees in summer, and no doubt will answer well; but as the roof is rough sheet, we do not see how the ridge-and-furrow would give advantages over a roof of the usual sloping kind. In a small house, I saw hundreds of buds of the *Golden Hamburgh Grape* shooting nicely. Mr. Veitch contemplates having a glass colonnade at the entrance, Crystal Palace fashion, and connecting the houses in the square with the large conservatory at the end of the corridor. The dead wall at the north side is no ornament now. This conservatory, owing to its lofty curvilinear roof, was a great thing at one time, when visitors used to mount the stairs, to the path way near the roof, to get close to the immense festoons of *Glycine sinensis*, and look down upon the large specimens of *Rhododendron arboreum* in full bloom. I cannot say that ever I had the pleasure of seeing these fine plants in any thing like perfection, and all owing, I believe, to want of sunlight. Lofty as they were, they were still a great distance from the lofty roof, and, as the walls were opaque to a great height, the light from the roof was all the plants could obtain. Such places do admirably for wintering plants of great size; but for getting them to set flower-buds they are only just better than the old-fashioned greenhouse with opaque roof and windows in front.

So far as I am aware, the *patent lever* glass ventilator is a novelty, and, if not too expensive as to the patent right, would be very neat and desirable when carefully managed. Like all good things, it is extremely simple. It is here applied to the front upright glass of a house, and air is admitted or shut off just as easily as you would open or shut a Venetian blind. The squares of

glass, in fact, are just similar to the pieces of wood, &c., in the blind. Suppose that the front of your house is three feet in height, and the spaces between the upright studs supporting the wall plate are three-and-a-half feet wide, then it is evident that four panes of glass, a little more than nine inches wide, and three-and-a-half feet long each, will cover that space, and allow a slight lap of one pane over the other. Secure the ends of these panes on a pivot, and so that you can open them by pressing out the lower side of the pane and pressing in the upper side of the pane, and you will have openings at the top and bottom of each, from the twentieth part of an inch, if you choose, on-and-on, until each pane is horizontal, and at right angles with each other; and thus, whether a lesser or a greater quantity of air was admitted at the front of the house, it would be equally diffused over the space, and not at one place. It would be of little use describing how the patentee does this. The following is the mode to be adopted, according to Mr. Veitch, by those who wish to give this very neat mode a trial:—Take the height and width of the spaces between the usual upright studs; make a frame to fit them exactly of wood some one-and-a-half inch broad, and half-an-inch thick, and send one of these frames for each space you wish to fill with the ventilator to the patentee. He cuts the glass according to the length, encloses each in its metal case, fastens one end to the frame of wood so as to be moveable on a stud, and, in addition to this, places the other end in connection with a small upright rod of iron, in such a way that the pulling of this rod down with a string opens the panes less or more, as you like; and all you have to do is to screw on the frame between your studs, and the affair is finished. I saw this mode of ventilating at mid-summer, but I was anxious to know how the winter would use it, being apprehensive that the moisture in the house might collect and be frozen between the laps of the panes, and thus either force the ventilators open, or break them. None of these effects had been experienced, and I found all the squares whole, and no mending had been necessary. Of course, the glass must be cut clean and straight; and in giving and taking away air, the operator will have to recollect that glass is not granite. Our readers will easily perceive to how many purposes connected with ventilation this principle and various modification of it may be applied. I know nothing of the patentee; I do not even know his address.

SPAN-ROOFED HOUSE-PITS, AT MESSRS. LEE'S, OF HAMMERSMITH.—This may be called a pattern little house for usefulness, and especially suited for amateurs. Two stand side by side, and it is proposed to put more. They have been designed by Mr. Charles Lee, I believe, and look extremely neat and simple. I have mislaid their exact size; but I will go as near the mark as I can from memory, trusting to friends for correction, if much out of the way. Length, about thirty feet; width, ten feet; height of the side-walls above the ground, twenty inches; boards are placed in the upper part of the wall for ventilation; path along the middle, sunk about a foot; a low wall bounds the path on each side; platform, or, rather, bed, on each side, over a rough chamber, in which are the heating pipes; there being openings at the side next the glass, and openings in the sides of the wall at the pathway, to promote a circulation of heated air in the house. The roof is fixed; the squares of glass wide, laid on strong sash-bars. The length of the sash-bars on each side is about five feet. These, however, do not meet at the apex; but at a point respectively, so as to leave nearly a foot between them at the apex or ridge of the house. A number of cross pieces tie the two sides firmly together at the top. Now, the house is all very well without this open space at the ridge in the centre. But this, and the way it is managed, are

what I conceive to be the distinguishing features. A ridge coping must be prepared for this opening. We all know how such a ridge may be formed, by nailing the edges of the boards of the necessary width together, and keeping the other edges sufficiently and regularly apart, by inserting cross pieces inside. Now, two such pieces cover the apex of the house. The cross pieces in the apex are joined to the cross pieces in the ridge, at intervals, by short, moveable, iron rods lying in a sloping or diagonal manner. The ridge is now secure to the roof; but how for top-air? On an iron bar across the apex, the bar acting as a fulcrum, is fixed an iron rod of some two feet or more in length, as a lever; the short end beyond the fulcrum being just long enough to catch and elevate sufficiently a cross piece in the ridge-board. When not used, this lever lies horizontally between the apex and the ridge; as soon you apply power by the hand to the end of it the ridge is elevated, from a small space to several inches, as far as the connecting iron rods will admit. A flat rod of iron, some two feet or so in length, and also fixed at the ridge on a joint, and pierced with holes to hold the end of the lever, is now taken hold of, and the iron rod placed in a hole according to the height you wish to raise the ridge. Another lever moves the other half of the ridge in the same way. I am not aware of any plan more simple and effective. I presume that the Messrs. Lee would not object to any one interested in the matter seeing these house-pits, and, very likely, would make no objections to drawings of them being taken and published. Gardeners and amateurs might vary them according to their tastes and desires. As they are, they are very useful for plants, for Vines, Figs, Peaches, &c., in pots, and for growing Cucumbers, and Melons. I may just add that the plants in these, and in the other houses, were in excellent order; and that, as proving the demand for fruiting plants in pots, whole houses of strong Vines, and houses and quarters of fruiting trees in pots had nearly disappeared. Comparatively few Vines were left at Messrs. Veitch's, and, I believe, many other nurserymen can tell the same tale. A vast number of new Vineries must have been planted every year, to use up the thousands sent out from London Nurseries alone.

BEDDING PLANTS.

I also called on two old friends—Mr. Caie, at Argyle Lodge (late Bedford Lodge), and Mr. Scobie, at Holland House. I saw much that was worth mentioning; but, for the present, I will confine myself to two facts. First, both these gentlemen strike the greater portion of their bedding-stuff in autumn, in cold frames raised above the ground and the cuttings near the glass, and leave them there all the winter, protecting with mats, and other covering. *Verbenas*, *Calceolarias*, &c., looked in excellent order, though as thick as they would stand. Cuttings would be taken off, and the plants left until planting time. There is little trouble or labour lost by this mode.

ORANGE TREES IN WINTER.

The second fact is, the manner in which Mr. Scobie is *forced* successfully to keep very large and very healthy Orange trees in winter. The conservatory may be described as a large double lean-to house; about a third of the width in the centre having an opaque roof—that roof, in fact, constituting a part of an elevated promenade, from which the parterres are seen to great advantage. In the glass-covered portion, *Camellias*, &c., were blooming finely, especially those planted out. Under the opaque roof the splendid Orange-trees are kept in excellent health. The secret is two-fold. Mr. Scobie gives no incitement to growth when in the house, and gets them out as soon as they can be safe, so that they bloom and make their wood out-of-doors. R. FISH.

PANAMA HATS.—A great many persons wear these hats without knowing anything about their history; but it is very interesting and useful. The following particulars are extracted from Seeman's *Botany of the Voyage of the Herald*:—"The fabric is made from the leaves of *Carludovica palmata*, a pandanaceous plant. The *Jipajipa* or Panama hats are principally manufactured in Veraguas and Western Panama, not all, however, known in commerce by that name are plaited in the Isthmus; by far the greater portion is made in Manta, Monte Christi, and other parts of Ecuador. The hats are worn almost in the whole American Continent, and the West Indies, and would probably be equally used in Europe, did not their high price, amounting often to 150 dollars for a single one, prevent their importation. They are distinguished from all others by consisting of only a single piece, and by their lightness and flexibility; they may be rolled up and put into the pocket without injury. In the rainy season they are apt to get black; but, by washing them with soap and water, besmearing them with lime-juice, or any other acid, and exposing them to the sun, their whiteness is easily restored. So little is known about these hats, that it may not be deemed out of place to insert here a notice of their manufacture. The straw (*Paja*) previous to plaiting has to go through several processes. The leaves are gathered before they unfold; all their ribs and coarser veins are removed; and the rest, without being separated from the base of the leaf, is reduced to shreds. After having been put in the sun for a day, and tied into a knot, the straw is immersed in boiling water until it becomes white. It is then hung up in a shady place, and subsequently bleached for two or three days. The straw is now ready for use, and in this state is sent to different places, especially to Peru, where the Indians manufacture from it, besides hats, those beautiful cigar-cases, which fetch sometimes more than £6 a-piece. The plaiting of the hats is done on a block, which is placed upon the knees; it commences at the crown, and finishes at the brim. According to the quality of the hats, more or less time is occupied in their completion. The coarser ones may be finished in two or three days, the finest takes as many months. The best time for plaiting are the morning hours, and the rainy season when the air is moist; in the middle of the day, and in dry, clear weather, the straw is apt to break, which, when the hats are finished, is betrayed by knots, and much diminishes their value."

THE CUCUMBER DISEASE.

As many complaints have been made of late respecting the disease in Cucumbers, and, in some cases, the disorder has assumed a virulent aspect, I will here repeat what I have before done to the readers of *THE COTTAGE GARDENER* respecting this singular disease, although, at the same time, I am not in possession of any known remedy for it. Nevertheless, as the issue of certain experiments may be useful to those suffering from it, I make no apology for here giving the results of my experience in the matter.

In the early part of the spring of 1850, some hot-house Cucumbers became diseased in the way so often described. Globules of a transparent fluid exuded from various places on the fruit, rendering it very disgusting to look upon; and, as the season advanced, the very small fruits only just forming became affected by it the same as larger ones, so that the plants became completely useless, and were done away with, while exhibiting tokens of good health, as far as the foliage and vine were concerned. This was early in the spring, so I determined to try what means could be adopted with others afterwards, thinking that the disease originated in the plants being in too rich a soil, or in one not

suited to their wants; and having suffered to a partial extent the preceding year, I was determined to try various experiments with them.

Accordingly, when the proper time arrived for planting out the ridge Cucumber plants, I had composts of several kinds prepared for them, from a dry sand to unctuous clay, as well as peat, and every conceivable mixture of ingredients in which plants are grown, as soot, lime, mortar rubbish, burnt earth, and other things, and sundry mixtures of the above, supplying them with water of different kinds afterwards. But all this labour was in vain, for after the plants got fairly into bearing they all became diseased as above; the disease, perhaps, being less severe in those of spare habits than in the gross ones, but in character it was equally the same, and possibly only differed in degree, as the subject was more or less able to support such a wasteful expenditure. This was alike the case with the frame plants and those out-doors; and when the plants no longer produced fruit in sufficient abundance, to serve as outlets to this misapplication of their resources, the vine and leaves became affected to a certain extent; the tumours appearing at the joints of the vines, and an unhealthy growth and speedy death was the result. But few fruit fit for the table were cut that year.

The only conclusion I could come to was, that the disease was of a contagious or infectious character, and not the result of anything which the plant imbibed from the soil or atmosphere, as the soil was changed in so many different ways as to leave no reason for assuming it to arise from that source. But, as I say, the whole of the plants either became victims to it, or were destroyed when they were no longer useful, so that soon after Midsummer they were all eradicated and gone, and the next season I took the precaution to have all the frames they were grown in well washed out, and fresh maiden loam of one or two kinds was used to grow them in. The plants grew away as vigorously as they usually do when in health, and I have not seen any symptoms of disease since. This cure, it is needless to say, was not due to any thing that I did; but it simply proved the fact, that the origin of the disease lay in something else than the soil the plants grew in, or the treatment they were subjected to, as they were, in some respects, the same in both seasons; but it left strong reasons for supposing the disease to have its origin in some "atmospheric cause," and were of such a nature as to become contaminating:—hence the inefficiency of the means tried to counteract it.

I need only add to those who have suffered from it, try the effects of a thorough good whitewashing of your frames, after washing them well with water. Painting may, perhaps, be better still; and procure some fresh earth to grow the plants in, taking care not to introduce any thing into the frame that has been in contact with diseased plants, and, with the ordinary care which usually ensures success, there is little doubt but the plants will produce healthy fruit again, as of yore:—the disease, which has had only a local existence, will be extirpated, and this favourite fruit become again an article of easy culture, and reward the cultivator with its produce.

J. ROBSON.

DEAD TIMBER FENCES.

UNDER this head may be classed all descriptions of fence formed of timber in any shape or manner, and very often of that nondescript kind which only looks well in a drawing or print. It is only right that the cottager, and others not well versed in such affairs, ought to know the qualities of the different kinds of timber of which such fences are usually made, and the merits or demerits of each, for the purposes required.

Supposing, therefore, that the cottager wants to put up a fence around his garden, and that the neighbouring woods contain various kinds of trees, some of which the proprietor is willing to allow him to have for the purpose, and he, being of an ingenious turn, is anxious to do the greater part of it himself, as well to save expense, as also to have the credit of the work. If there are *Larch* Fir-trees tolerably straight, which at bottom may be six inches in diameter, but which, at the height of twelve feet or so, are thick enough to saw down through, so as to make two rails, this is a description of railing easily obtained, and a little axe-work, by those accustomed to the job, soon reduces the thicker end of the tree, so as to be no larger than is wanted for the double rail; a slight slip of the bark being only taken off at the top.

When a fence is by the road-side the posts ought to stand not more than five feet apart, therefore, rails of ten or fifteen feet suit best. If more than the latter, there is generally a third rail or more made out of the piece; but whichever way it is, I would have the cottager, or amateur, make his bargain with the sawyer, that they should be all ready to nail up when they left their hands; and as the uninformed would like to know what ought to be paid for such work, I may tell him, that the sawing and preparing such rails ready for use is usually paid for by lineal measure, and from 3s. to 4s. per hundred yards is generally paid, varying according to the nature of the timber, and other circumstances.

We now have to provide posts, which ought to be of another kind of timber; and I dare say many fingers will be pointing to Oak, but, somehow, I hardly expect that good Oak can be spared for this job, and small, young Oak is, perhaps, the worst wood of any for decaying soon. I would prefer *Spanish Chesnut*, *Ash*, or *Elm*. The tops of large, old *Larch Firs* are as durable as anything, only not very plentiful; and as it rarely happens that anything can be spared for a job of this kind large enough to be sawn or split, so as to make two or more, I would give the preference to *Chesnut*, or *Elm*. Next to those, *Ash*, *Larch Fir*, *Maple*, *Sycamore*, *Scotch Fir*, *Beech*, and *Hornbeam*, somewhat in the order they stand. *Poplar* and *Willow*, though lasting quite as long as the last-named woods, do not hold the nails well. However, as there is not always so much to choose from, I will dismiss that part, and merely advise the cottager, after having his posts cut to their proper length, to dress them up a little on four sides, keeping, or attempting to make them as straight as possible.

The ground being marked out into lengths of five feet, post-holes about two feet deep will do for ordinary fencing-posts, those for gate-posts to be more. I may observe, that if the posts are charred at the part just on the surface they will last much longer, and a little fire may be made, and the posts laid over it, propped up by stones for the flames to pass over them, they will amply repay the labour by their increased durability.

In general, four horizontal rails will be wanted for a garden-fence, the top of the highest being somewhat about three feet nine inches (or a little more) high; the rails may then be nailed on, first simply sawing off the ends square, so as to occupy only half the post, which is supposed to have its broadest side that way, and also its straightest one; for in preparing them due regard must be had to that, and however crooked the stuff may be, a practised eye can generally see how they can be made straight one way. The best rail must also be at top, and another being placed at a proper distance from the bottom, the intervening space can easily be divided by the eye; but one thing I especially point out as imperative, never to have more than two joints at one post, and let these be such as the first and third, or second and fourth. The utility of this plan will be obvious to every one.

J. ROBSON.

THE SUBURBAN VILLA, AND COUNTRY HOUSE.

(Continued from page 414.)

THE APPROACH.—THE ENTRANCE LODGE.

THE first impressions which the mind receives from the contemplation of any object, are generally those which it retains the longest; and, indeed, if we are very much interested in the examination, they are rarely wholly obliterated.

It becomes, therefore, desirable that any object, the presence of which is intended to exercise a pleasing influence on a spectator, should first be seen by him from a favourable point of view. In accomplishing this, there must be no forced appearance, no evidence of restraint. It must seem to arise from the natural state of things; for the age is exceedingly suspicious, and when it detects an imposition, or, what is still worse, a clumsy attempt at one, it for a long time refuses to recognise real beauties without suspicion of trick or artifice.

Now, in approaching a residence for the first time, we invariably, though, perhaps, unconsciously, form a mental estimate of its character, as regards cheerfulness, beauty, convenience, &c., &c., and every occupier is naturally desirous that the impression formed should be of a favourable character. Whether this shall be so or not depends very much upon the point of entrance to the grounds, and the direction of the road by which the residence is approached; no matter whether such road be only a few rods or a mile or two in length. Let us endeavour to ascertain what are the correct principles for guidance in forming an approach.

It should be considered simply as a road to the house, and not as a circuitous drive to show off the extent or beauty of the grounds through which it passes. The entrance-gate should, if the grounds are of any extent, be placed at some point not visible from the windows of the residence, and the residence itself should not, as a principle, be visible from the coach-road until the spectator has arrived near enough and in such a position that it can be seen to the best advantage, and if possible on, or on what should appear to be, a rising ground. Where the approach can be made by a gradual ascent throughout its whole length, it forms a most agreeable feature in itself, as well as greatly enhancing others, and its accomplishment should never be lost sight of whenever there is a chance of realising it.

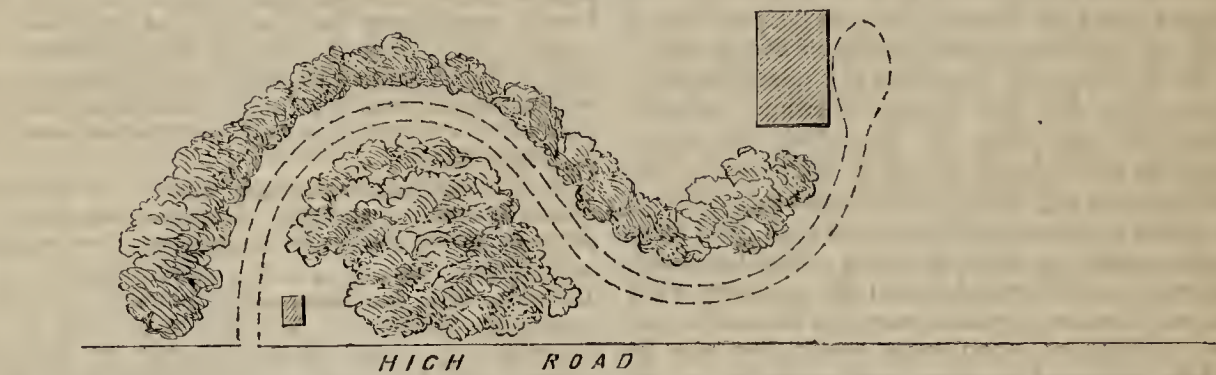
From the entrance-gate up to the point where the house is first observed, the scenery in the immediate neighbourhood of the road should be as attractive as possible; but when the house is once in view every other object should appear subordinate; nothing should divide attention with it; the road should proceed directly towards it; no deviation must be attempted. Yet the road should seem to follow the natural irregularities of the surface if it be of an undulating character; but if flat and monotonous, and destitute of trees, art must determine a graceful line of approach, and at the same time furnish sufficient reasons for any deviation from a direct line. A straight approach-road is rarely admissible, except when bounded by an avenue, an object, however, somewhat antagonistic to the prevailing taste. Yet few appendages to a mansion are so capable of inspiring the idea of grandeur as the approach to it through a noble avenue. Nor is such an appendage at all out of place when attached to houses of very moderate pretensions, if the style of architecture be appropriate. The destruction of so many noble avenues in the last century, during what may be termed the transition period of taste, or, rather, of fashion, in landscape gardening, from the formal to the picturesque style, must ever be regretted. For in most situations where deference to the, then, prevailing practice condemned them to the axe, they were far more appropriate than the so-called picturesque arrangements to which they were sacrificed.

One of the most prevailing errors in approach-roads is the indirect, circuitous, and often ostentatious, manner in which they lead to the house, rendering such roads, to quote a happy expression, reproaches rather than approaches to the residences to which they belong. Thus, in some instances, you enter at an acute angle with the high road, and after running parallel to it for some distance, and from which it is only partially hidden by a meagre belt of trees, you come

suddenly in sight of the back of the house you are in search of, and after a few more turns arrive at the front door to find that it is only a short distance from the high road. Now, such a length of road is, no doubt, supposed to impress the visitors with the idea that the grounds through which it passes are extensive, whether they are so or not. If a visitor were to pass along such a road at night, and was told when he entered the gate, and when he had arrived at the house, he might possibly entertain such an opinion; but it is quite certain, that if his visit were made in the broad day, the attempted deception would at once be apparent, and, consequently, his impressions the reverse of favourable.

A few months since, I had occasion to visit some grounds where a modification of this style of approach-road had recently been formed. I will describe its principal features. Imagine the high road to lead in nearly a direct line for a quarter-of-a-mile or more. You enter the grounds at right angles to it at one point, make a bold curve, as nearly a semi-circle as possible, and return to within ten yards of it; then, after making another turn, you reach the house, which is only a short distance from the high road itself, certainly not at a greater distance than one-third the entire length of the approach-road. Fig. 4 will better illustrate the absurdity of such an arrangement. Thus, in passing over

Fig. 4.



this road to the house, you in reality go a long way to make a short journey. The inconsistency was at once so palpable, that I ventured to ask why such had been adopted. *To show the extent of the place*, was the reply. I should state, that this was in a very extensive property, and that the high road in question, although passing near the residence, merely divides some portions of the estate.

Another example. Some time since, a gentleman purchased a very pretty little house, with its accompanying grounds, in one of the eastern counties, and immediately commenced extensive alterations, himself directing the works in person. With the majority of these I have nothing to do at present, it is of the approach alone that I wish to speak. The house stood upon a knoll of easy ascent,

a few rods from the high road, and the approach, before the commencement of the alterations in question, led up to it in a direct and easy manner. But, under the idea of rendering the grounds more extensive in appearance, this line of road was wholly changed, or, rather, abandoned altogether; and now, after entering the gate, instead of proceeding directly to the house, as was formerly the case, you diverge in nearly an opposite direction, till, having passed the house, you make a bold curve, and return to it in a direction exactly opposite to that by which you passed the entrance-gate; and this to show off the grounds! The diagram, Fig. 5, indicates the diversion of the existing road. The dotted lines give the original and proper line.

If we consider the approach to a residence as merely what

Fig. 5.



it in reality is, or, at least, what it should be, a convenient means of access to it, and that any obstacle to this is blemish, it will enable us to avoid many inconsistencies in its construction. Let convenience and utility be first considered: if these desirable qualities are recognised and worked out

by good taste, a pleasing combination will always result. It may not, perhaps, be a perfect one, or even the best that the circumstances will allow; but, at all events, there will be little to find fault with either on the score of utility or appearance. But, judging from many existing examples in

which totally different principles or, rather, no principles whatever are adopted, the legitimate uses of an approach are lost sight of, and a circuitous drive about the grounds does duty instead.—G. LOVELL, *Landscape Gardener, Bagshot.*

(To be continued.)

ROCK GARDENS AND ALPINE PLANTS.

"The lonely glen—the murmuring brook,
The dreary moor,—the craggy rock—
Is never sought in vain;
Each has its own inhabitant."

So sings a poet; and we all know how abundantly every part of Nature teems with life and beauty, wherever our footsteps carry us. Whatever we pause to examine, on mountain or on plain, everything is fitted to impart the most valuable instruction, as well as to fill us with admiration of Him who created and sustains all being.

The intelligent Rambler will meet everywhere with some object adapted to his particular study, whether his mind is directed to examining the strata of the earth; investigating the various habits of animal life; or exploring the number, structure, and geographical distribution of the "modest wild flowers," nourished and cherished by a hand unseen.

Many are the pleasing remembrances we treasure in our minds connected with these pursuits. Well do we remember, in days of infancy, with what pleasure we culled the fragrant blossoms, and with what rapture we bore them home; and although these scenes, with all their happy associations, have long since vanished, we are grateful to feel that what was once but productive of childish amusement, has now become the source of intelligent and profitable reflections.

"Few natural objects are more highly poetical than flowers," and countless are the lays in which the praises of many of our commonest wild flowers have been celebrated; but, in the language of an elegant writer, "these lovely images are neither impaired in their beauty, nor exhausted of their sweetness, for having been the medium of poetic feeling ever since the world began."

Those who have visited the mountainous districts of our own country, or other alpine regions of Europe, cannot but have admired the unrivalled beauty of numerous plants abounding in these localities, where, placed by the hand of Nature, all their natural grace, simplicity, and beauty are fully developed. What, for example, can rival the lovely cerulean blossoms of *Myosotis alpestris*, perfuming the desert atmosphere with its sweetness? Or the pretty *Saxifraga oppositifolia*, crimsoning with its delicate petals the rugged rock? And it is with a view of bringing such interesting objects within the range of our every-day admiration that artificial rockwork has been introduced into garden scenery.

It would be of little importance giving any ideas on the formation or construction of a rockery, so much being dependant on situation and local circumstances. We view it chiefly as a means for the better cultivation of plants, which, for their nature, minuteness, or rarity, cannot, with propriety, be planted in the flower-borders. Sometimes advantage can be taken of a piece of natural rock, which may be converted into an alpine garden of great interest; but whether natural or artificial, a pond of water introduced near its base, and a few weeping trees in its immediate vicinity, such as *Salix caprea pendula*, Weeping Birch, Ash, &c., will add much to its general effect.

The spaces, or crevices, between the stones, or rocks, should be filled with compost suitable for the plants intended to be cultivated. Some succeed only in peat; while by far the greater portion prefer a mixture of peat and loam. The shaded portions should be chosen for hardy Ferns, *Saxifrages*, and such plants as naturally grow in shade; while the sunny spots should be selected for *Astragalus*, *Helianthemum*, *Oxytropes*, *Sedum*, *Sempervivum*, and those found in dry and exposed situations. In disposing of the plants, they should be placed so that their flowers, foliage, and habit may contrast well with each other, and be so arranged as to prevent the strong and rambling from eventually over-running the weak and delicate. Several species of *Cerastium*, or others that increase rapidly, and are difficult to eradicate, ought to be entirely excluded. Those, however, having

slender trailing stems, as *Glechoma hederacea variegata*, may be introduced with fine effect, particularly amongst Ferns, as they do not impede the growth of other plants, and give to the surface an impress of antiquity.

This department of gardening is particularly adapted for ladies, the plants being in themselves extremely beautiful; the greater portion are easily cultivated, and they do not, like most other classes of plants, require the continued application of manures, composts, or other extra labours, which ladies cannot well undertake; and for such of our fair readers as propose to indulge in this source of amusement, we append the following list of desirable plants:—

Those marked with † prefer a situation somewhat shaded.

<i>Achillea clavennæ</i> and <i>tomentosa</i>	<i>Gypsophila muralis</i> and <i>prostrata</i>
† <i>Ajuga alpina</i> , <i>pyramidalis</i> , and <i>reptans</i> , fol. <i>variegatis</i>	<i>Hedysarum alpinum</i> and <i>obscureum</i>
<i>Alchemilla alpina conjuncta</i>	<i>Hippocrepis balearica</i> , <i>comosa</i> , and <i>Helvetica</i>
<i>Alyssum montanum</i> and <i>olympicum</i>	<i>Hydrocotyle Sibthorpioides</i>
† <i>Androsace lanuginosa</i>	<i>Iberis carnosa</i> , <i>Taurica</i> , <i>Tenoriana</i> , and <i>sempervirens</i>
† <i>Andromeda tetragona</i>	<i>Jeffersonia diphylla</i>
† <i>Anemone apennina</i> , <i>nemerosa</i> , fl. pl., and <i>ranunculoides</i>	<i>Linaria alpina</i> , <i>pilosa</i> , and <i>origanifolia</i>
<i>Anthyllis montana</i> and <i>vulneraria</i> ; sorts	† <i>Linnæa borealis</i>
<i>Arabis cœrulea</i> , <i>lucida</i> , fol. <i>variegatis</i> , and <i>petræa</i>	<i>Lithospermum maritimum</i>
† <i>Arbutus alpina</i> and <i>uva-ursi</i>	<i>Lychnis alpinus</i>
<i>Arenaria balearica</i> , <i>grandiflora</i> , <i>saxatilis</i> , and <i>verna</i>	† <i>Mitella nuda</i>
<i>Aretia vitaliana</i>	† <i>Myosotis alpestris</i> , <i>Azorica</i> , and <i>palustris</i>
<i>Arnica montana</i>	† <i>Omphalodes nitida</i>
<i>Asarum japonicum</i>	<i>Oxytropis campestris</i> , <i>lactea</i> , and <i>uralensis</i>
<i>Asperula cynanchica</i>	<i>Phlox Nelsonii</i> , <i>nivalis</i> , and <i>setacea</i>
<i>Astragalus alpinus</i> , <i>hypoglottis</i> , fl. albo, and <i>tragacantha</i>	<i>Polygonum Brunonii</i> , <i>viviparum</i> , and <i>vacciniifolium</i>
<i>Astrantia minor</i>	<i>Potentilla lupinoides</i> and <i>tridentata</i>
<i>Aubrietia deltoidea</i> and <i>grandiflora</i>	† <i>Primula Scotica</i> and <i>farinosa</i>
<i>Azalea procumbens</i>	† <i>Paris quadrifolia</i>
<i>Bellidiastrum Micheli</i>	† <i>Pyrola rotundifolia</i>
<i>Bellium crassifolium</i> and <i>minutum</i>	<i>Ranonda Pyrenaica</i>
<i>Campanula cæspitosa</i> , <i>garganica</i> , <i>muralis</i> , <i>pulla</i> , and <i>pumila</i> , fl. albo	† <i>Ranunculus parnassifolius</i>
<i>Cineraria alpina</i>	† <i>Saxifraga Aizoon</i> , <i>Andrewsii</i> , <i>cristata</i> , <i>juniperina</i> , <i>nivalis</i> , <i>oppositifolia</i> , <i>orientalis</i> , and <i>tenella</i>
<i>Cerastium alpinum</i> and <i>tomentosum</i>	<i>Schiœcreckia podolica</i>
† <i>Coptis trifoliata</i>	<i>Sedum album turgidum</i> , <i>brevifolium</i> , <i>Sieboldii</i> , &c.
<i>Coronilla iberica</i> and <i>minima</i>	<i>Sempervivum arachnoideum</i> , <i>cuspidatum</i> , <i>Californicum</i> , <i>globuliferum</i> , and <i>montanum</i>
† <i>Cortusa Mathioli</i>	<i>Silene acaulis</i> , <i>alpestris</i> , and <i>Schafta</i>
<i>Cornus Canadensis</i> and <i>suecica</i>	† <i>Sibthorpia Europæa</i>
<i>Cotyledon lutea</i> and <i>umbilica</i>	† <i>Soldanella montana</i>
† <i>Cypripedium calceolus</i>	<i>Stachys Corsica</i>
<i>Dianthus alpinus</i>	<i>Thymus Azoricus</i> and <i>serpyllum tomentosus</i>
† <i>Dondia epipactis</i>	<i>Trifolium uniflorum</i>
<i>Draba aizoides</i> , <i>aizoon</i> , <i>cuspidata</i> , and <i>tridentata</i>	<i>Tussilago alpina</i>
<i>Dryas Drummondii</i> and <i>octopetala</i>	<i>Umbilicus chrysantha</i>
† <i>Epimedium atrovioleaceum</i> , <i>grandiflorum</i> , and <i>pinnatum elegans</i>	<i>Veronica nivalis</i> , <i>setigera</i> , and <i>saxatilis</i>
<i>Erigeron Roylei</i>	<i>Vicia argentea</i>
<i>Erinus alpinus</i> and <i>Hispanicus</i>	† <i>Viola palmata</i> , <i>pedata</i> , and <i>pyrolæfolia</i>
<i>Erodium Richardii</i>	—JAMES RAE, <i>Edinburgh.</i>
<i>Euphorbia Portlandica</i>	
<i>Gentiana pneumonanthe</i> and <i>verna</i>	
<i>Globularia cordifolia</i> and <i>vulgaris</i>	

AUTUMN-FLOWERING ROSES.

YOUR correspondent, "QUIS," whose letter and flower-garden plan appear in the number for February 19, asks you to recommend a few good autumnal-flowering Roses to his list. As you have not named any, I take the liberty of suggesting half-a-dozen, which, I think, possess, in an eminent degree, the characteristics your correspondent desires. They are quite distinct from any he has, and have one quality—that of *opening well*—which all good autumnal Roses do not possess late in the season, at least, not so far north as York. The half-dozen I should recommend are—*Gloire de Dijon*, *Louis Odier*, *Dr. Juillanc*, *Paul Duprez*, *Noemi*, *Triomphe de Paris*. There are several older varieties, much better, late bloomers, than some of those "QUIS" has; such are—*Duc d'Aumale*, *General Bren*, *Leon des Combats*, &c., &c. *Aimée Vibert* is indispensable in any collection. Perhaps "QUIS" has it as a pillar Rose, for which it is well adapted to the height of five feet. *Pourpre de Tyre* makes a splendid pillar Rose, ten feet high, and blooms, when well established, profusely from July to November. —ONE WHO POTTERS AMONG A FEW ROSES.

A HUMBLE PROPAGATING APPARATUS.

If you think the following account of a *very humble*, but economical, apparatus for striking cuttings and rearing seedlings, in a bed-room even, without smoke or smell, may be acceptable to any of your lady readers, who, like myself, are debarred by ill-health from even venturing into a greenhouse during the cold spring months, and yet long to join in all the interesting operations of that period, it is heartily at your service.

I had a common, old rushlight shade cut down to the height of nine inches. On this I place a tin baking-dish, one foot square, the sides two inches deep. I fill the dish with silver-sand, kept moist. I place my little pots of cuttings and seedlings in the sand, and cover them with a large bell-glass (a hand-light, made exactly to fit the dish, would be better). In the rushlight shade, raised on a small or larger inverted pot, as I wish for more or less heat, I put (in a small saucer to hold a little water) one of Price's Child's Night Lights to burn ten hours. By this means I keep up a heat of from 70° to 90°, or even higher, as I raise or lower the light; and, without the least smoke or smell, can have the delight of raising seedlings and striking

cuttings, even when unable to leave my bed-room; and none but an invalid can appreciate the pleasure of thus sharing in the pursuits from which they feel otherwise cut off.

The cost of the lights is just twopence for twenty-four hours.

All I have ever known of gardening has been learnt from your pages, and I can never express my gratitude for the consolation (the purest of *earthly* ones) they have been in sickness and in sorrow.—E. T.

PERNETTYA CILIA'RS.

(HAIR-FRINGED PERNETTYA.)

THE genus *Pernettya* belongs to the Natural Order of Heathworths (*Ericaceæ*), but the species composing the genus have more of the appearance of *Vacciniums*, or Whortleberries. The genus is in the *Decandria Monogynia* Class and Order of Linnaeus, and is allied to *Gaultheria*.



The present species was discovered in Mexico by Mr. D. Don, and the name he bestowed upon it refers to the scattered, brown, bristly hairs which fringe the edges of the leaves. It is a hardy evergreen shrub (or requiring but slight shelter in winter) with white flowers, giving birth to rich, reddish-brown berries. Sir J. Paxton states that they become purple. It was introduced by Messrs. Veitch, in 1850, and grows in the open ground of their Nurseries. It

requires a peat border, and is cultivated like a moderately hardy *Azalea*.

ARTHROSTEMMA FRAGILE.

(BRITTLE ARTHROSTEMMA.)

THE following particulars we copy from the second edition of THE COTTAGE GARDENERS' DICTIONARY, now in



course of publication:—"Its name is derived from *arthron*, a joint, and *stemma*, a crown; the flower-stalks being jointed. Natural Order, *Melastomads* (Melastomaceæ), and to the Linnaean *Octandria Monogynia*. Allied to *Osbeckia*."

ARTHROSTEMMA FRAGILE.

"Raised from seeds gathered by Mr. Hartweg in the west of Mexico, and received in January, 1846.

"A light green brittle-stemmed shrub, about three feet high, and covered slightly with fine glandular scattered hairs. Leaves stalked, about two inches long, egg shaped, very slightly heart-shaped, five-nerved, acute, and finely serrated. Flowers an inch-and-a-half across, in loose few-flowered terminal cymes. Petals oblong, slightly mucronate, deep rosy-purple. Anthers nearly equal in size, furnished at the base with a short incurved bifid spur. Apex of the ovary free, slightly hispid; its interior is two-celled, with two spurious additional dissepiments, which make it four-celled.

"Mr. Benthani remarks that this species 'is not among Mr. Hartweg's dried plants. As to the genus, it is very near De Candolle's section *Monochaetum* of *Arthrostemma*; but the appendages of the anthers are all bifid at the extremity, and the ovary has but two cells instead of four. It differs from *Heteronoma* by the anthers of both series being fertile and nearly equal and similar, as well as by the nervation of the leaves. The setae on the ovary are small and few, but they exist; and its close affinity is evidently with *Arthrostemma* (*Monochaetum*), a good genus, if all *Arthrostemma* be not united to *Chatogastra*."

"It is a stove shrub, growing readily in a mixture of loam, peat, and leaf-mould, and easily increased by cuttings. It flowers from June to September, but its blossoms are very fugitive; they are, however, gay-coloured, and make an agreeable variety, especially as they are associated with a fine deep green shining foliage."—*Horticultural Society's Journal*.

IS THE POTATO MURRAIN INFLUENCED BY FROST?

IN continuation of my statement on the connection between frost and the Potato disease, made in No. 381, p. 281, I beg to add one or two more examples. Happening to relate my experience of last season to a farmer in East Lothian, he immediately replied, that he had a case exactly similar. His Potato field lay on the west side of a stripe of plantation, sufficiently tall to shade the Potatoes from the first rays of the morning sun. Right across this plantation, however, there lay a roadway into the field, and opposite this roadway, and of the same breadth with it, was a belt of badly-diseased Potatoes, stretching from one side of the field to the other. In the frost of the 7th of September this belt was exposed, through the opening in the plantation, to the first rays of the rising sun, and, before the direct rays could reach any other part of the field, the temperature had so far risen as to melt the hoar frost on the leaves. In this narrow stripe, passing athwart the Potato drills, the diseased

Potatoes were thrice as numerous as in any other part of the field.

One of my neighbours told me, some time ago, that in her cottage garden she had a narrow belt of Potatoes, badly diseased, of about two feet in width. This lay in a slanting direction, across the drills, and was opposite a small wicket gate by which the garden was entered. It was only by this gate that the rays of the morning sun could reach the Potatoes; the hedge on one side, and a rough fence, well hedged up with nettles, on another, shading the Potatoes, except at the wicket. I was told that there was not a diseased Potato in any other part of the garden. These are two cases unmistakeable. To-day, I asked the tenant of a garden adjacent to the one previously mentioned, as to the state of the Potatoes in his garden. He stated, that the disease, last season, attacked the *upper end* of it. This is the part that would be first reached by the early rays of the sun; and he added, that in this part of his garden his Potatoes were *always* worst. There is no accounting for this from difference of soil or treatment. It would be waste both of time and space to follow this class of facts further, as I could do easily. I am very sure that a little reflection on the part of your numerous readers would evolve a great many similar examples.

The amount of the examples I have given is this:—The leaf of the Potato being destroyed by frost, there followed disease in the tuber. The leaf was not itself destroyed by disease. It has been often said, and more often thought, that the Potato disease began in the leaf, and passed down through the stem to the tuber. This is certainly a mistake. It is quite true that the disease in the tuber appears always to follow the decay in the leaf; and it is easy to conclude, from this circumstance, that it arises in the leaf, and passes thence to the Potato. But in the examples before us the leaf was *killed* by frost, or rather by the action of the sun's rays on the leaf when in a frozen state; and the leaf being killed, disease followed. As the leaf performs certain very important functions which, when it is killed, it can no longer do, disease results in some way or other from the cessation of these functions. Now, the living leaf, amongst other things, has to throw off matter which the plant has not been able to assimilate, and, probably, what may be called dead matter also; that is, matter which has already, at some stage of its growth, formed a part of the plant, but which is thrown off again, just like that waste which is always going on in an animal body. It is likely, therefore, that it is in the matter which ought to escape from the leaf, and which will be found from the tuber upwards, that the disease has its first seat. It may be, that this dead matter is the disease, or that on which the germ of the disease, previously existing in an undeveloped state in the tuber, feeds. This can only be determined by observation, and I think it a matter quite capable of being so determined. When the Potato is in a growing state, and when the leaf becomes affected (perished by cold, as I believe), suppose that a person thoroughly acquainted with vegetable structure, not only the form, but the elements also, and with vegetable physiology and pathology, should take a Potato-plant tuber and haulm, and observe, with a good microscope, its internal conditions; let him take plant after plant, and pursue his observations day by day, and I am sure he will not have to do this many days before he finds the disease; and I should expect him to be able, from such a course of observation, to tell us something more than we know now of the nature, the rise, progress, and history of this formidable disease. It is not even necessary to wait until the leaf has perished; it may be destroyed artificially, or its pores closed so as to prevent it discharging its functions, which would, of course, just effect what the frost did; and let this experiment be followed by persevering observation. The practical use which we should make of our facts is, unquestionably, what your correspondent of last week urges—plant early, and when the leaf is affected, believe that it indicates a danger near at hand. *Cutting* the haulm (not pulling it) when the leaf is affected would allow it to bleed, to use a common phrase, and discharge that matter which cannot escape from the dead leaf, and the presence of which in the stem and tuber appear to be either the direct cause or occasion of the disease.—B.

P.S.—THE COTTAGE GARDENER of February 15th has

just come to hand, and as it is there stated by a correspondent, "that had I looked, I should have seen disease before the visitation of frost;" I reply, that I frequently examined that lot of Potatoes during the period of their growth, and neither in tuber or top was there the slightest trace of disease before the frost. In one week after, I found diseased tubers, and in three weeks they were a mass of disease. Then, about the noon-day sun. I had a lot of the same sort of Potatoes in another part of the garden, planted on the same day, as I have already stated, with the frost lot; they were fully exposed to the noon-day sun, but they were so far shaded from the morning sun, were very slightly touched with frost, and about one tuber in fifty bad. So the noon-day sun did not damage them.

[Is not this difficulty in the way of the opinion that Frost is the cause of the Potato Murrain? The disease has only recently appeared, yet Potatoes have been subjected to similar frosts ever since their introduction.—ED. C. G.]

RUSTIC ADORNMENTS.*

NOTHING could be more seasonable than this beautiful book of Mr. Hibberd's, for there never was a time when Natural History was more popular than it is at present. Go where you will, you find one absorbed in the study of Ferns, another in Sea-weeds, while, in numerous instances, you may meet with those who have even seized upon the mighty deep, and caused it to give up some of the curious living creatures that are in it, to aid them in the pursuit of their favourite study. There are no pursuits which are, to our mind, more delightful than those on which Mr. Hibberd treats; and while they form, in an eminent degree, what he has styled them, "Rustic Adornments," we, at the same time, enjoy them more acceptably as "Recreations for Town Folk in the Study and Imitation of Nature." For town folk to attain such an end, we strongly recommend to them the work before us, which treats of the Aquarium, the Wardian Case, the Fernery, the Aviary, the Apiary, and many other rural pursuits. It is beautifully illustrated, and, as a present to those whom we love or esteem, we do not know anything more appropriate. On the Aquarium, Mr. Hibberd says:—

"The Aquarium is one of the latest and choicest of inventions for the rustic adornment of a home, and affords, at a comparatively small expenditure, an immense return in the way of instruction and amusement. Its very difficulties enhance the power of interesting, and add a zest to the enjoyment of success. Considered as a domestic ornament, it is unsurpassable, and, while in its humblest form, it presents a constant succession of beautiful and novel objects; so to all the accessories of artistic decoration it adds the charm of life, in some of its most beautiful and strange developments. The merest glimpse of water is always refreshing to the eye; its clear, cool aspect; the mingling of many colours and forms; the peculiar growth of aquatic plants, and the still more curious forms and movements of aquatic animals, combine to form an assemblage of delightful and ever-changing pictures.

"The Naiads need no longer dwell in forest lone, dipping their white feet in streams haunted only by the robin and the humble-bee, but may sport in gay drawing-rooms, in homely parlours, in the study of the recluse, or the chamber of the valetudinarian.

"The Aquarium exemplifies, in an instructive manner, the great system of compensation, which, in nature, preserves the balance of equilibrium in animal and vegetable life. Researches into the chemistry of animal and vegetable bodies, and especially of the effects they severally produce, by respiration, on the medium surrounding them, have resulted in the conclusion, that animals and vegetables supply each other with the gases most essential to existence. What the one exhales as effete and obnoxious, the other absorbs for the highest uses of vitality. Animals take oxygen from the medium in which they live, and, in return, exhale carbonic acid. Vegetables, also, absorb oxygen gas, and give out carbon; but they, also, absorb the latter in greater quantity than they exhale it, and, during their season of

* Rustic Adornments for Homes of Taste, and Recreations for Town Folk in the Study and Imitation of Nature, by Shirley Hibberd. London: Groombridge and Sons.

greatest activity, throw off more oxygen than they take up at other times. Herein is the first element in the management of an Aquarium, which, to be successful, must contain a sufficient number of plants to supply the animals with atmospheric air for respiration."

PLANTS FOR MARINE AQUARIUM. — TREES IN ST. PAUL'S CHURCH YARD.

In reply to the question of an "Old Subscriber" respecting marine plants, I beg to say that I have kept specimens of *Ulva*, *Enteromorpha*, *Punctaria*, *Conferva*, *Chondrus crispus*, and *Corallina officinalis*, during the last five months with *Sea-anemones*, without having occasion to change the water. All these kinds of Sea-weed are common on most shores between tide-marks and in rock-pools. As a general rule, any of the green weeds, and all the more delicate sorts of red weed, will grow well in an aquarium. I have not tried keeping fish, but I believe Gobies and small Wrasses are easy to keep. Your subscriber will find further information in Mr. Gosse's Handbook to the Aquarium.

Perhaps you will allow me to ask a question in return. What is it that kills the Plane trees in St. Paul's Church-yard? In the summer of 1854, one of the trees, then in leaf, had a disease, or fungus, in the bark, between two feet and four feet from the ground. The bark cracked vertically, and the edges of the cracks became like locks of dirty wool, or the cobwebs in a cellar. This went on till the bark all round the tree was destroyed, and the tree died. In the following winter four or five adjoining trees died in the same way, and have been removed, and now I see that most of the few remaining trees are similarly affected.—GEORGE BOWLES, JUN., *Brandon Cottage, Camden New Town.*

VEGETABLE CULTURE AND COOKERY.

NO. VIII.

BRUSSELS SPROUTS.

THIS delicious vegetable is of easy cultivation, and it endures the severest winters we have; it is, therefore, a valuable winter green. The seed is sown in April, and the whole cultivation of the plant is the same as is given for Borecole. The principal crops should be planted out in the beginning of July, and again in the beginning of August; the first of which will produce a supply of buds from September till February, and the second will continue it till May. The buds are ready to gather when they are the size of a walnut, and the larger should be gathered first, the smaller being left till they have acquired full growth. The crowns will be found a very nice green, and should be cut off after the plant has attained its perfect height, which will throw more strength and vigour into the buds, and thereby assist their development. Care should be taken, when procuring seed of Brussels Sprouts, to see that it is imported, as the plant has a tendency to degenerate in this country.

TO BOIL BRUSSELS SPROUTS.—Trim and wash them perfectly clean, and let them lie an hour in cold water. Put them on in boiling water, with a little salt, and boil them till tender. Drain off the water and serve them hot.

ANOTHER WAY.—Having cooked them as above, put a piece of butter in a saucepan, add the Sprouts, with pepper and a little salt, and some gravy, if you have any, and serve them with *sauce blonde*, which is made thus:—Brown a piece of butter very carefully in a saucepan, and thin it with broth, and nothing else; let it boil for half-an-hour, in order that the flavour of the browning may be lost. At the moment of serving, put into it a piece of butter rolled in flour to enrich it; thin it with broth, but omit vinegar or lemon juice. This is very delicate and easily made.

BURNET.

This is called also *Pimprenelle*, and is used both as a salad and a pot herb. By the French it is extensively employed as an ingredient in soups, and the flavour it communicates is exactly that of the Cucumber.

To have a supply of Burnet throughout the year the seed should be sown in March or April, and also in August, either broad-cast or in drills; and when the plants are two or three inches high, they should be thinned or planted out at a distance of a foot from each other. As fast as the leaves are produced, cut them off when young, for use, and the plants will continue to produce a succession. In summer, when they throw up flower-stalks, these should be cut down to encourage the production of young stems and leaves from beneath. All that is necessary in the cultivation is to keep the plants free from weeds.

BURNET VINEGAR.—Fill a wide-mouthed bottle with the fresh green leaves of Burnet, and cover them with vinegar; let them steep for ten days, and, if you wish it strongly flavoured, strain the liquor, put it on some fresh leaves, and let them steep fourteen days more. This is an excellent relish with cold meats, salads, &c.

In salads, Burnet is a great addition to their flavour, and is by many considered an essential ingredient.—ROGER ASHPOLE.

NEW SELF-REGISTERING GARDEN THERMOMETER.

EVERY gardener knows, or ought to know, the value of a good self-registering thermometer. To be able to ascertain what the temperature of the atmosphere is when he is asleep, and how near his favourite plants, or crops, have been threatened with destruction, without having suffered, is a satisfaction which only those who have experienced it can appreciate. We have tried a good many thermometers in our time; some on box-wood scales, some on ivory, and some metal, but we have always found that by exposure to the atmosphere, whether out-of-doors, or in the moisture of the greenhouse, that the figures of the scale would soon become obliterated, and the scale itself becomes covered with green vegetation, or an oxidized crust. We have just been shown a thermometer in which all these objections are obviated, made by Messrs. Nigretti and Zambra, of Hatton Garden, London. The scale is made of cast zinc, and the figures and degrees are *raised*, so that there is no chance of their being obliterated, or even being rendered indistinct by exposure to any atmosphere; and as the ground colour of the scale is dark, and the figures bright, observations can be made without a close inspection of the instrument. Another great recommendation of the instrument is its extraordinary cheapness, the piece being only 3s. 6d. After this, who is there who would be without this valuable instrument?

QUERIES AND ANSWERS.

GARDENING.

SPRING TREATMENT OF ROSE-CUTTINGS.

"The hand and bell-glasses have remained over the autumn-made Rose-cuttings ever since they were planted. They are now budding, and throwing out leaves; but what is going on under-ground I know not. Should I give air, in order to check the growth above ground, or let them alone? —R. B."

[Tilt the glasses, and let them have a little air, day and night; on very hot days give more air; and when warm showers come, let them have an hour's rain once in ten days. They are all right below; but you tried them too severely: they ought to have had air occasionally all through the winter.]

FLOWERING-PLANTS IN BEDS SURROUNDED BY GRASS.

"A CONSTANT SUBSCRIBER would be much obliged for a list of summer plants which would look well, as to height and colour, in four beds in a grass garden; one bed is Pear-shaped, one a star, one a triangle, and the fourth a large, fancy-shaped bed."

[The large, fancy-shaped bed would look well if planted thus:—*Standard Roses*, about three feet high in the stems,

in the centre, to be four feet apart, and the nearest of them to the grass to be four feet from it; round these, and only eighteen inches from the standards, a row of dwarf *Perpetual Roses* would look well. Then, between these and the grass to be filled with bedding-plants; a row of old plants of *Calceolaria rugosa* next the Roses; then, two rows of *Tom Thumb* Scarlet Geranium; and the outside, *Flower of the Day*, a variegated Geranium, or white, scarlet, and purple *Verbenas*, in bands, first, and to run into each other as they spread, would look well; or part *Verbenas* and part Geraniums and *Calceolarias*, or one mass of purple *Petunias*, or a regular mixture of herbaceous plants and annuals. There are ten ways for planting every flower-bed which is not a part of a regular system of beds. The pear-shaped bed would look well to be all of Scarlet Geraniums, with a white border of *Verbenas*, or white-leaved Geraniums, as *Mangles' Variegated*; and the star blue and white, if it is large enough for the blue *Salvia* and a white *Petunia*. They would look well together, and the star bed might be two kinds of pink Geraniums, as *Nosegay* for the centre, and *Ivy-leaved* round it, with a blue band of *Lobelia ramosoides*, or any of that breed, between them and the grass; but without knowing the size of the beds, and their relative position, all this is the merest guess-work. Any of our indexes will refer to the best bedding-plants in each colour, and we shall shortly write on the same subject; but we must never be understood as positively recommending one style or manner of planting beds.]

PLANTS FOR THE SOUTH-WEST WALL OF A HOUSE.

"Will you publish a list of a few good climbing Roses for the side of a house, south by south-west, or any other plants you think suitable for such a situation in Cheshire? Part of the side is heated by the dining-room fire and chimney. Do you think a *Magnolia* would answer, trained along this part? The situation is sheltered.—SUBSCRIBER."

[We should think the *Magnolia grandiflora*, the true Exmouth variety, with the very rusty down on the under side of the leaf, would be very likely to flower on your south wall in a sheltered situation in Cheshire. We would only plant the best Noisette Roses so near the doors and windows, such as *La Marque*, *Fellenberg*, *Solfaterre*, *Jaune Desprez*, and *Jean d'Arc*; and some of the strong Tea and Bourbon Roses would bud and do well on these, after they were once established. The White *Wisteria*, or White *Glycine sinensis*, is becoming fashionable now for south walls, and the old one is still "the King of Climbers," as Mr. Sabine once called it. *Ceanothus azureus* is one of the most beautiful house wall shrubs we have; but it would need to be well covered in winter. *Bignonia grandiflora* and *B. radicans* are not planted in such places half so freely as their merits deserve. *Escallonia macrantha* is a fine thing to train like a Peach. *Chimonanthus fragrans* is the sweetest flower we have to get against a house; it ought to be trained like a Peach.]

RETARDING POTATOES.

"I shall be obliged by your giving some information as to the best method of retarding Potatoes intended for planting. I have some which have been spread thinly in shallow boxes, and kept in a cool place, and some of them have shoots from two to three inches long. In this case, would you recommend these shoots being removed, (for I do not think of planting till the first week in April), by which time they will be of little service. I see in THE COTTAGE GARDENER early planting is recommended, even in February. The result of this plan here (Devon) would be to have Potato-plants above ground by the end of March or beginning of April, long after which time frost may be expected. About the end of April, 1854, I had young Potatoes formed three inches long, the parent plants of which were cut down level with the ground by frost.—A COUNTRY CURATE."

[Some varieties vegetate much later than others. The *Fuke* is a very late sprouter. The only preventives of sprouting are cold, accompanied by the absence of light. The stems of early-planted Potatoes, we find, in the eastern

part of England, do not appear above ground so soon as the same variety kept unplanted until sprouted, and then planted. We plant some in November, and some in every month until the end of February, and the latest planted are usually up first. Those planted early are buried eight inches, and are thus kept cold. We never rub off the sprouts from seed Potatoes. If the frost does cut the tops, it will not weaken the set more than rubbing off the sprouts before planting.]

TO CORRESPONDENTS.

*** We request that no one will write to the departmental writers of THE COTTAGE GARDENER. It gives them unjustifiable trouble and expense. All communications should be addressed, "To the Editor of Cottage Gardener, 20, Paternoster Row, London."

GREENHOUSE GARDEN (*Constant Reader*).—The reason why the plants do not harmonise, is, that the left group of beds, from the centre, do not correspond with the right-hand group; the fault is in the design. In all regular figures, like this, the beds on one side of the centre group should be of the same shape and size as those on the other side. The only way to overcome this faulty design is to fill all the beds in the centre groups, round the monthly Roses, with one kind of plant in each bed, and all the beds in both end groups to be of mixed plants; but you are well aware that we never recommend particular plants for such and such beds.

FLOWER-BEDS (*Oscar*).—Your new group of beds, marked A, opposite the drawing-room window, is very good indeed. The beds in the outer circle, 3, 4, 5, 6, ought to be filled with the brightest colours in bedding plants, and 2, 4, 7, 8, with lower plants, and more subdued colours. The next circle of beds, from 9 to 14, may be all of mixed plants, and the middle circle *must be low*, as any three distinct kinds of *Verbena*, mixed. At any rate, all your lowest plants ought to be in this bed; and you must avoid putting a mass of scarlet or yellow in it. Let your Scarlet Geranium be in 4 or 5, and the Yellow *Calceolaria* next them; 3 or 6 would be the best place for the *Fuchsias*. Common *Phloxes* are too high for any bed in this group; keep them, and such as them, in the front of the shrub-beds. It does not matter a straw to have the plants of different kinds; colour is the thing, as you say. But you see we are as the poles asunder on the subject of planting the centre (15), and the circle of beds next to it. Have your way, however. The arrangement for the Roses is good, and the situation seems well chosen. If all the beds in A. were planted with bedding-plants, 15 might be *Dahlia Zelinda*. The rest of your arrangements seem well considered from the plans; but the best drawn plan is but a shadow compared to one glance over the place, with the naked eye.

NAME OF JASMINE (*Mary Fordham*).—It is the *Jasminum revolutum*, which does well on a south or west wall, and we should not hesitate to plant it out on an eastern aspect, where, without doubt, it would flourish. We should plant it out at once without fear. We have known it to be quite hardy for many years, though it suffered a little in the year 1838.

HEATING BY HOT-WATER (*J. C.*).—Your proposed system will answer well; but your pipes in the house must in no part be higher than the water in your boiler. If the top of your flow-pipe was three or four inches below the top of your boiler, you might let that flow-pipe rise one inch to the extreme end; if not, let the flow-pipe be level. The flow and return may join there in an open column, or cistern; or, provided the flow-pipe rises an inch or so, an elbow pipe may join the flow and return together, and an air-pipe, of one-quarter-of-an-inch diameter, fixed at the highest point, will make all right. If you have to raise the pipes above the level of the boiler, the top of the boiler must be air and water tight.

TURNER'S PRUNING SCISSORS (*M. F. S.*).—Mr. John Turner is perfectly honest. His direction is, "Hope Cottage, Neepsend, Sheffield." Write to him again; and excuse us for saying that you had better write your own direction very legibly; we cannot decipher it.

GREY SPANISH RABBITS.—*An Old Subscriber* wishes to be informed where he can obtain some large specimens of this variety.

MATERIAL FOR PAPER-MAKING (*A Gardener*).—We have just heard from the paper-makers that they fear the fibres are not strong enough; but they would try them if furnished with about six hundred-weight.

GLASS FOR CUCUMBER FRAMES (*P. W.*).—Any of the kinds you mention will do; but we should prefer the crown glass for early forcing, at which time there is never too much light. In cutting *Asparagus*, cut down the sprue as well as the large heads.

ARAUCARIA SEED-SOWING (*An Old Subscriber*).—You will have seen what Mr. Beaton said on the subject, when describing his visit to the "Clapton Nursery."

ARAUCARIA SHOOTS TURNED BROWN (*G. E. P.*).—The shoots, probably, made growth late in the season; at all events, the frost has destroyed the leading point of each shoot, and resin is discharging from the wounds. Is the tree growing on a damp soil, or in a low-lying situation?

BEES (*J. R.*).—We shall be much obliged by your communications.

SOFTENING BIRDS' SKINS.—*F. G. H.* wishes to know how he can best do this preparatory to stuffing them.

CORN MILL (*J. Broadley*).—Write to Messrs. Dean, Dray, and Co., who advertise in our columns. They will send you drawings and prices.

NAME OF APPLE (*H. S.*).—It appears to be a small specimen of the *Castle Major Apple*.

THE POULTRY CHRONICLE.

POULTRY SHOWS.

ANERLEY. July 15th, 16th, 17th, and 18th.

BRISTOL. June 25th and 26th. Sec. Robert Hillhouse Bush, Litfield House, Clifton, Bristol. Entries close 26th of May.

ESSEX. At Colchester, 8th, 9th, and 10th of January, 1857. Secs. G. E. Attwood, and W. A. Warwick.

NEWCASTLE, NORTHUMBERLAND, AND DURHAM. At Newcastle, March 26th and 27th. Sec. Mr. W. Trotter, South Accomb, near Newcastle.

NORWICH. June 20th. (Norfolk Agricultural, for Subscribers only.) Sec. Mr. E. C. Bailey, Little Oxford Street, Norwich. Entries close May 31st.

NOTTINGHAMSHIRE. At Southwell, December 17th and 18th, 1856. Sec. Richard Hawksley, jun. Entries close November 19th.

WHARFDALE. April 18th, at Otley. Sec. Mr. T. Metcalfe, Otley.

WINDSOR POULTRY EXHIBITION. At Windsor, 4th, 5th, and 6th of June. Secs. Thos. Chamberlain, and Henry Thompson. Entries will close May 10th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

THE OBJECTIONABLE RESULTS OF HOLDING POULTRY SHOWS SIMULTANEOUSLY.

It is now ascertained, beyond the possibility of doubt, that the Poultry Exhibitions of the year 1856 will very far exceed, both in numbers and importance, those of the season just closed. At present, the announcements actually placed before the public are necessarily limited; but not a few prize lists have already been placed in our hands for general supervision, and we were not a little surprised to find that, in a variety of instances, the time chosen for holding them was precisely the same. This, no doubt, has arisen, in the cases alluded to, from the fact that the date was fixed in reference to their own locality, without the slightest thought of any interference whatever with the interests of similar societies, be they rivals or otherwise. However inadvertently selected, the result and natural tendency remains unchanged, and invariably (though in different degrees) to the disadvantage of BOTH societies.

Our attention has been directed to this objectionable arrangement by the collision of interests that must eventually ensue in every case where these plans are pertinaciously adhered to, and which might be just as easily avoided, by a mutual "understanding" among the committees of management of our various leading poultry exhibitions. The circumstance is so very recent, that, no doubt, it occurs to the mind of most of our readers, that even in December last, the holding of the Great London Cattle Show, in Baker Street, and the one for the Midland Counties, in Bingley Hall, Birmingham, on the *self-same days*, was highly detrimental to the pecuniary interests of both societies. That Birmingham passed through the trying ordeal with the least comparative suffering, *The Times*, and not a few other newspapers of that date, bore most concurrent testimony; and we, ourselves, have not a doubt "the Poultry department" of the Bingley Hall exhibition was the feature that caused the scales "to draw" more especially in its favour, by giving it the advantage in the "long pull." We have not the slightest desire of party spirit, but, on the contrary, our only wish is to see ALL such societies thriving and prosperous; and, as public monitors, to give timely hints of any mistakes that require supervision, or forewarn of unexpected evils that might most probably ensue. We are, therefore, most happy in being able to say, no such collision of interests will again be permitted to arise (from their respective meetings on the *same days*) between the two colossal societies we have just alluded to; but rather, by the mutual arrangements of their respective councils, the interests of either will be alike consulted, and every visitor, desirous of so doing, be thus enabled to enjoy the pleasure of attending both exhibitions. Very great credit is due to all the parties for the good feeling they have thus manifested, and the extremely good policy of so doing must be evident to every one who at all reflects on the powerful influence "mutual

accommodation" will have on the future interests of their respective societies.

This naturally leads onwards to the investigation whether it is probable similar misarrangements are in contemplation elsewhere. The first of this character that has, as yet, this season come to our knowledge, takes place at the commencement of next June—the Bath and West of England Agricultural Society, and the Windsor Exhibition committees, both holding their meetings on the *SAME* days. Although it is probable "second consideration" may yet lead to some different plan being adopted—by one party or the other—to the *very considerable and ultimate benefit* of BOTH, it may not be here amiss to very briefly point out a few prominent disadvantages that cannot in any way be avoided, if their present arrangements are pertinaciously adhered to on each side.

All must agree (who have paid the slightest consideration whatever to the subject) that the real and absolute interest of any exhibition must be totally identified with the *quality and UNUSUAL perfection* of the specimens entered for competition, whether they are animals, poultry, or agricultural produce. If the rivalry is great, and the competition *closely disputed* for the future ownership of the premiums, the attendance of visitors will be proportionably *increased*; whilst even a "passing report," that any named show will be a perfect "Bridgenorth Election," tends not only to render it less locally interesting, but also has an influence on the receipts, that none but those who have already suffered from it can sufficiently appreciate. To all exhibitions (instituted for the improvement of the various kinds of live stock) numbers of spectators are attracted, in the hope of availing themselves of so favourable an opportunity of seeing the most noted breeds placed side by side, and indulging in close comparison of their respective peculiarities or individual pre-eminence, if they are descended from the same strain. In the latter case, of course, almost everything depends on unremitted care, and well-advised superintendence. Hence it is, that those exhibitions generally prove most attractive, and, *consequently, most profitable*, where the hope of improving their own stock by judicious "crosses" (or infusion of "fresh blood") is held out to visitors; and the sales effected will, therefore, *always* bear the strictest comparison with the *quality* of the stock that may have competed. It is equally well attested, by the experience of almost every committee, that their cash accounts have been influenced far more by the entrance monies of those who have travelled some distance to visit the exhibition, than by the attendance of parties living in the immediate neighbourhood. This proves to demonstration, that "to restrict the competition to the county" in which the show takes place, is not by any means advisable or lucrative; in short, it is conclusive, that the more *diverse* the origin of the stock, and the more uncertain the chances of success in prize-winning, the greater will be the emulation evinced by competitors to secure the premiums, and, therefore, it is most advisable to permit "entries" from *any* part of the United Kingdom.

We have, in the foregoing remarks, embraced *every kind* of agricultural stock, as *all* are equally influenced by the peculiar circumstances we have mentioned, but will now confine ourselves more particularly to poultry, and especially in connection with the Bath and Windsor Exhibitions. Happening, as we stated, on the *same days*, all the best of our exhibition birds will be divided. Some exhibitors possessing *first-class* fowls, and emulous rather of *distinction* than pecuniary gain, will court more than avoid competition; whilst the "faint-hearted" will closely canvass the probabilities of "*which* show offers the better chance of success" for their *inferior* poultry; or, again, a mercenary proprietor, who is determined to "make sure," may purposely enter where success is *certain*, from his dreaded competitors being all engaged in more praiseworthy and honourable rivalry elsewhere. Nor does this division of interests rest exclusively with the birds themselves; the public attention tending to widely varying channels, each society (as the natural consequence) must suffer seriously in its receipts, whilst the importance of the present exhibition being materially decreased, will as infallibly spread a baneful influence over future meetings.

As being a private affair, resting exclusively between the committee and the gentlemen who may be engaged, we will

only cursorily allude to another important disadvantage of concurrent meetings; viz., the increased difficulty of obtaining efficient judges. To some of the less experienced of our readers this may, at first, appear far more easy of attainment than it has very frequently proved to be; and we could (were it advisable so to do) refer to many committees, who, at "the last push," have most anxiously appealed to us (after many fruitless applications) to advise them in their dilemma. Of course, a different arrangement would have obviated their unexpected and troublesome difficulty altogether.

We have already entered far more into detail than we at first intended, and will, therefore, summarily conclude with our convictions as to poultry shows in general. If prevented (by pre-management) from interfering with each other, no doubt a successful issue is open to all who attempt them; but if interests clash by holding them *simultaneously*, it is equally certain the weakest must prove failures from want of patronage.

MANCHESTER AND LIVERPOOL PRIZE LIST.

A FEW weeks since, we incidentally called the attention of our readers to the fact, that a far greater amount of prizes for poultry would be offered at our various exhibitions, during the *present* year, than took place in 1855; and that premiums of *plate* would be more particularly increased, both as regards numbers and intrinsic value. Although to ourselves it is well-known that not a few similar instances are in store (which it would at present be quite premature to particularize), we cannot but direct the notice of amateurs possessing first-rate poultry to the liberal prize list of the United Agricultural Societies of Manchester and Liverpool, which has been just issued. This meeting possesses many extraordinary advantages, among which, not the least (to those who disapprove of *over-working* their poultry), is the very limited time the fowls are exhibited, viz., for ONLY A SINGLE DAY, being Thursday, the 7th of August next. Independent of our sovereign premiums to the best pen in each class, we have the following prizes in silver cups; they are offered for general competition, open to the whole kingdom. Each pen must contain a male bird and two females.

For the best pen of Spanish fowls	a 10 guinea cup.
For the best pen of Grey Dorkings	a 10 "
For the best pen of Cochins (any colour) a	6 "
For the best pen of Game (any colour) .. a	6 "
For the best pen of Pencilled Hamburgs a	6 "
For the best pen of Spangled Hamburgs a	6 "
For the best pen of Black Polands, with white crests	a 6 "
For the best pen of Polands (any other colour)	a 6 "
For the best pen of Bantams (any variety) a	6 "
For the best pen of Turkeys.....	a 6 "
For the best pen of Geese.....	a 6 "
For the best pen of Rouen Ducks	a 6 "
For the best pen of Aylesbury Ducks	a 6 "

It will be seen, that thirteen silver cups will be appropriated to successful exhibitors, in total value amounting to ninety pounds, six shillings. It will take place at Wigan, Lancashire, and prize lists, certificates of entry, or any other information, may be had by applying to John H. Peek, Esq., or John S. Marshall, Esq., the Honorary Secretaries, both at Wigan.

We are informed, by parties the most capable of forming correct conclusions, that this meeting promises *already* to be one of the most important exhibitions of poultry yet held in Lancashire, and we readily admit that so liberal an amount of premiums well merits public competition and increased support.

SELL ONLY FOR CASH.

Would you be so kind as to permit me, through the pages of THE COTTAGE GARDENER, to impress strongly on the minds of all poultry amateurs the necessity of increased vigilance to prevent them becoming the prey of parties who (for several springs in succession) have, with extraordinary success, obtained valuable pens of exhibition-birds without paying for them. Manchester has chiefly hitherto been the

scene of their operations; but the *same* parties are now carrying on the like fraudulent practices in the Midland Counties. I am acquainted with several amateurs, whose cupidity—for any price is agreed to—has, within the last few weeks, got the better of their discretion. To *various* applicants fowls have been forwarded, and acknowledged as "safely arrived;" but to all after applications, a vacant house and unknown change of residence is the only reply. It may be easily obviated, by *never* forwarding fowls until the agreed sum is first remitted (*to be returned if the fowls should be disapproved*), where the presumed purchaser is unknown. Nor can the arrangement proposed be offensive in any way where no subterfuge is contemplated.—EDWARD HEWITT.

THE SILVER POLAND CLASS AT THE LIVERPOOL SHOW.

I STATE, and repeat, that the bird exhibited at Liverpool was a bird having a black beard disfigured by a white patch at the lower right side, a black neck, a black breast, *on the sides* from about the pinion downwards a narrow streak of spangled feathers, such as is frequently seen in black-breasted Grey Dorkings. That is my assertion. "*Censor*" says, p. 402, "The bird in question was very far removed from a black-breasted one; to call it such is a sad exaggeration. I admit it was darker than it should have been as a *perfect Exhibition Bird*." Why, then, award it the cup? So, then, according to "*Censor*," it appears the devil is not really as black as I have painted him. Now, in addition to being a devoted amateur of poultry, I am also a painter, and have made portraits, life size, of many of the varieties, which, according to Pollonius, "are considered very good paintings," and this gives me a little the vantage ground, as, in consequence, I could not be expected to mistake *distinct, accurate markings for black*. I must thank "*Censor*" for informing me there are other points than the breast markings of a Silver Hamburg cock (improperly called Poland), and hope when next he tries his hand, he will tell us something not generally known. Hear "*Censor*" again, "With the ownership of the successful birds the Judges had naturally nothing to do." So say I. Mr. Hewitt, one Judge, as is well known, lives many a mile from the fortunate owner, Mr. Baker, who is a dealer; and as Mr. Bailey, the other Judge, is a dealer also, and it is well known two of a trade never agree, there was no likelihood that either could have known the owner; therefore, in this, we both agree. "The Judges had naturally nothing to do with the ownership," nor did I say they had. My reason for mentioning Mr. Baker's name, who has, I am well aware, beautiful birds, was, that there was a rule against dealers competing, and, therefore, no dealer could legally gain a prize, and on that ground I appealed to a member of the Committee, and called his attention to the fact, and that the bird was a black-breasted one, and also that there was none other in the show like him. I shall not follow "*Censor*" in his flutterings farther than to say, that when a barrister feels he has a bad case, he tries to break down the credibility of the opposite witness. I called on the only Dublin gentleman I saw at the show, who had examined the bird in question, and asked his opinion, he said at once, "Unquestionably, it was a black-breasted bird." —R. WILLIAMS.

[We have omitted in the above what we considered was calculated to annoy, and here the dispute may well end. There is a difference of opinion, and both the parties are entitled to maintain their own. "*Censor*," is sustained in his opinion by the Judges.—ED. C. G.]

PRIZE LIST OF THE ROYAL AGRICULTURAL SOCIETY.

THE Exhibition of this Society, which ought to be the best in England for Poultry, as it is for other subjects of the farmer's occupation, is fixed for the week commencing on the 14th of July. For *Dorkings*, *Spanish*, and *Game*, the four prizes for each range between five and one sovereigns. For Cocks of the same, two sovereigns. For *Cochin-Chinas*,

four and two sovereigns; and for the best Cock, two sovereigns. For *Hamburgs* of each variety, two sovereigns and one sovereign. For *Brahma Pootras*, two sovereigns only. For *Polands* of each variety, four and two sovereigns. For *Turkeys*, three and one sovereigns. For *Geese*, three, two, and one sovereigns. For *Aylesbury* and *Rouen Ducks*, three, two, and one sovereigns each. For *Ducks of any other variety*, two and one sovereigns. All certificates of entry must be sent in before *June the 1st*. Applications must be made to J. Hudson, Esq., Secretary, 12, Hanover Square, London.

SPANISH FOWLS.

Is there but *one* kind of Spanish fowl worth noticing? Indeed, is there *only* one sort? Are there no varieties? Upon my word, it is quite time to be protesting against a prize monopoly in the white-faced specimens. It is quite true that this especial variety has attracted an undue preference, I apprehend, from being the class to make a stand against the *Minorea*, which was considered Spanish, until the deaf ear-lobes of the former proved them hybrids. But because they have walked clean over the good, hardy, and productive old *Minorea*, are they to be so very aristocratic as to permit no other variety to have an even chance with them? Where are the White Spanish and the Blue (or Andalusian)? Surely no one will deny that a White Spanish bird is not upon equal terms with a black; if they have not evidenced this truth, it is from being non-classed, and, therefore, outsiders. The lovely white plumage of this bird, in truth, wholly white with the exception of his mighty pendulous comb and wattles, makes a contrast extremely beautiful, and their qualities are equally attractive. None lay eggs, larger or better, or more numerous. The Andalusians are remarkably fine, and possess traits far superior to the white-faced class; but if they fail in occupying a proper position, it is the fault of their owners, and, certainly, not less so of the judges, as also the tardy spirit, and, I may say, the lack of anything like a disquisition on their essentials and merits. During the last twelve months, through your periodical, by attending shows, by exhibiting specimens, by questioning judges, by inquisitive inspection, *cum multis aliis vexationibus*, I have endeavoured to search out the truth; still, I am quite as far off the commonest points as ever.

At Exeter, last June, it was ruled, that the face should be red and very circumscribed, *i.e.*, well covered with feathers, and the breast well mottled; and, provided there was an

absence of any other colours but blue and *black*, it was esteemed a decent specimen. I produced an immense bird at Taunton, and two good hens, pale legged. Of course, my dauder was considerably roused, when I found my successful opponent a smaller bird, white faced, dark legged, and not black hackled. What was I to do? my bird had won at Exeter. Why, I sent him to a friend in Ireland, and set about prosecuting further inquiries. In this periodical, Feb. 5th, "Notice to Correspondents," you curtly gave me the chief points; and, on referring them to the purchaser of the last Birmingham prize bird, I find his bird has a large white face and ear-lobes, with yellowish feathers on the wings; and, again, on submitting this description to a celebrated and successful breeder at Newcastle-on-Tyne, he assures me, that yellow, or any other coloured feathers but blue, and the peculiar mixed greyish hackle and saddle feathers, are a decided imperfection, and that a white face is an abhorrence; and yet all these birds have gained first prizes. After such a mass of uncertainty respecting the real points of this capital Spanish bird, with what certainty is a person to calculate on buying the bird he wants? The observation a gentleman made in his communication to me is a very true one. "You know lots about these birds and so does every one else, and so do I, but such knowledge is of no use as a guide to us." Now, after this *cleft stick* which the Andalusians have got into, is it any wonder they are outsiders? Parties must be more communicative or there they will remain, *suspicious characters*.—W. H., *Exeter*.

PARIS UNIVERSAL EXHIBITION OF FOREIGN AND FRENCH BREEDING STOCK.

THIS will be held at Paris from the 23rd of May until the 7th of June. For *Creve-cœur Fowls*, four prizes, from £5 to £1, and for *Cochin-Chinas* the same. For *Dorkings*, *Brahma Pootras*, *Breda*, *Russian*, *Malays*, *Paduas*, and *Polands*, three prizes each, from £4 to £2. For *other Breeds*, four prizes, of from £4 to £1. For *Turkeys*, four prizes, from £5 to £1. For *Geese* and *Ducks*, three prizes, from £3 to £1. Ten pounds are to be distributed in premiums for *Pigeons*, *Pheasants*, *Guinea Fowls*, and other kinds of Poultry. Declarations, or Certificates of Entry, must be sent before April the 9th. Forms and particulars may be obtained by writing to M. M. E. Rouher, *Division de l'Agriculture, rue de Varennes, No. 78 bis, Paris*.

KEEPING POULTRY WITHIN A BOUNDARY.

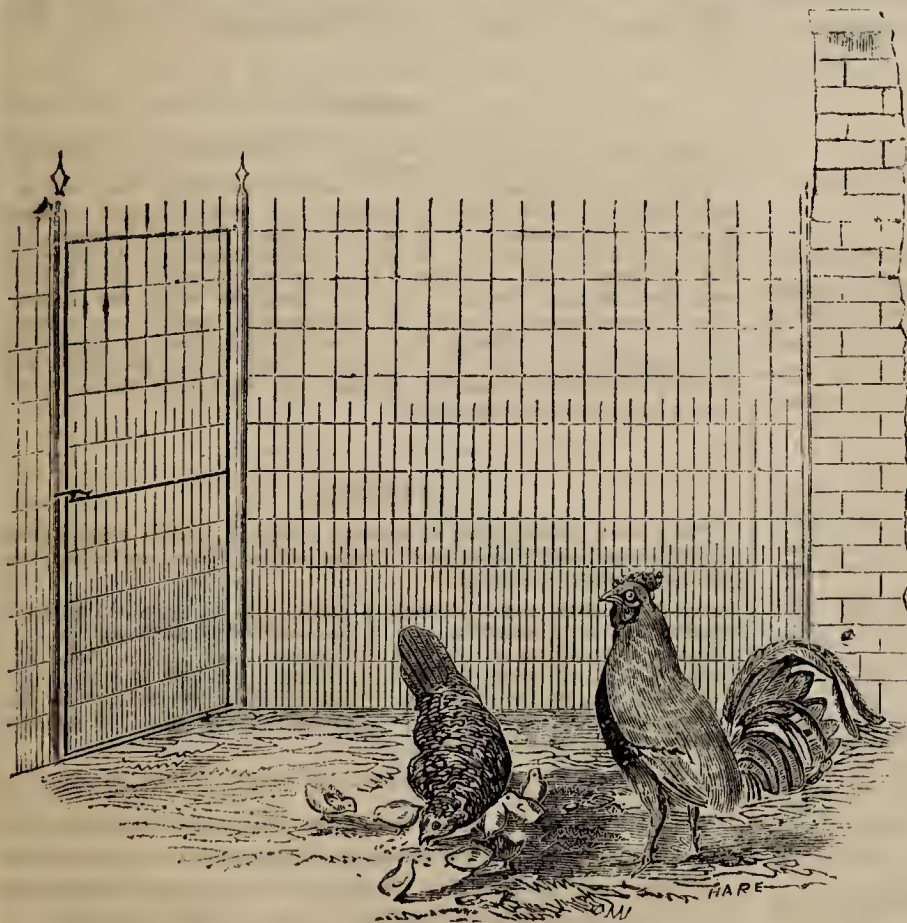
OUR correspondent "*Mus*" will never keep his poultry from flying over the wire fence if he has "a bar along the upper edge of the wire netting." The fowls see the bar and fly up to it as a roosting-place. To prevent this, Messrs. Greening have spikes projecting above the upper rod of the fencing they make, as in this sketch.

"*Mus*" will not succeed with iron net work painted, so well as with that of galvanised iron without paint. As he resides so near to Manchester, why need he go to any other manufacturer than Messrs. B. Greening & Co., Victoria Iron Works, 1, Church Gate, in that city?

The annexed sketch is borrowed from their illustrated catalogue.

THE COMING SEASON.

THE time is now come when committees are busy in making their arrangements and sending out their prize lists. Every thing indicates an active season. The Royal Agricultural Society of England, the Bath and West of England, Colchester, Anerley, Windsor, and Bristol, are already advertised, and numerous others are sounding the note of preparation. We have no advice to give to committees in general. We believe they always



do their duty; but, among all others in the past season, Colchester was distinguished for the immediate return of the birds, and the promptitude with which all demands were settled. We cannot impress too strongly on all members that nothing tells so favourably as such speedy settlements. To exhibitors and lovers of the pursuit, we recommend liberal support of shows in the way of subscriptions, recollecting, that committee-men have all the trouble and responsibility, and do not ask for profit. It is not too much to represent that under no circumstances should they be allowed to suffer loss. We beg of those who make entries to make them early, and thereby lessen the labour of the hardest working man in the world, the Honorary Secretary. We ask the railways, and the inhabitants of the towns in which shows are held, to contribute to their support. We advise exhibitors, when they go to ascertain their fate, to look at other pens beside their own, and rather to accept the decision of competent Judges as a lesson, than to criticise it as an error, or worse.

We ask all to meet in the new season, not only with new zest, but with kindly feelings; and we advise some, who of late have found fault with every thing that Judges have done, to prove their right to criticize by accepting the office themselves, and avoiding the faults they have so freely and perseveringly denounced in others. Knowledge in these matters grows daily, and the halcyon time will be when all are alike Judges. Wellington has closed this season; and we salute the next, and trust when it is past all will be able to look back upon it with pleasure.

OUR LETTER BOX.

INFLUENCE OF MALE BIRD (W. B.).—We have known a hen that was with a male bird for one day only after sitting lay more than fifteen fertile eggs. It is common for a cottager to keep a single hen Turkey, and to take it to a farmer's Turkey cock for an hour or so. The hen is then taken home, and all her eggs for her that year's sitting are fertile.

UNION BETWEEN THE DOMESTIC FOWL AND DUCK.—"I have a remarkably amorous cockerel. He has become violently enamoured of a duck, and pays her constant attention. Will this in any way effect the eggs?—HARRY GREEN."

[We have seen many similar unions between a Game cock and a duck. Indeed, they are far from uncommon; but in all cases the result would necessarily be unfertile eggs. Of course, the attention of the cockerel would not interfere with the fertilization of the eggs by the drake.—W. B. T.]

LONDON MARKETS.—MARCH 17TH.

COVENT GARDEN.

The piercing easterly winds of the past week have materially checked our supplies, and interfered with trade; the prices of all the forced *Vegetables* having advanced in consequence. Some good, early hothouse *Grapes* have come to hand, and also a few of *Keene's Seedling Strawberry*, which have realized fair prices. In rough goods, our quotations are about the same; the *Potato* trade remaining as last week—heavy and dull.

FRUIT.

Apples, kitchen, per bushel	3s. to 6s
" dessert	6s. ,, 10s.
Pears	8s. ,, 12s.
Pine-apples, per lb...	8s. ,, 12s.
Foreign Grapes, per lb.	2s. ,, 3s.
Hothouse ditto, ditto	15s. ,, 30s.
Strawberries, per oz.	2s. ,, 3s.
Foreign Melons, each	2s. ,, 4s.
Oranges, per 100	4s. ,, 10s.
Semille Oranges, do...	6s. ,, 12s.
Lemons	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —
Nuts, Filberts, per 100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel	20s. ,, 22s.
Nuts, Brazil, ditto..	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts, per bushel	15s. ,, 24s.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	4s. ,, 6s.
Broccoli per bble	1s. ,, 2s.
Savoy	1s. ,, 2s.
Greens, per doz. buch.	4s. ,, 6s.
Spinach, per sieve....	— ,, 4s.
French Beans, per hundred	3s. ,, 4s.
Carrots, per bunch ..	4d. ,, 6d.
Parsnips, per doz....	6d. ,, 9d.
Beet, per doz.....	1s. to 1s. 6d.
Potatoes, per cwt. ..	3s. ,, 6s.
Onions, young, ditto..	1d. ,, 2d.
Turnips, per bunch..	3d. ,, 4d.
Leeks, per bunch	2d. ,, 3d.
Garlic, per lb.	6d. ,, 8d.
Horseradish, per bundle	1s. 6d. to 2s. 6d.
Shallots, per lb.	6d. ,, 1s.

COVENT GARDEN—Continued.

Lettuce, Cos, each	6d. to 8d.	Rhubarb, per bundle	6d. to 1s.
" Cabbage per doz.	2d. ,, 3d.	Cucumbers, each	1s. ,, 3s.
Endive, per score ..	1s. 6d. ,, 2s.	Mushrooms, per pot	1s. 6d. ,, 2s.
Celery, per bunch..	9d. ,, 1s. 6d.	HERBS.	
Radishes, Turnip, per dozen bunches	6d.	Basil, per bunch	4d. to 6d.
Water Cresses, ditto ..	6d. ,, 9d.	Marjoram, per bunch	4d. ,, 6d.
Small Salad, per punnet.....	2d. ,, 3d.	Fennel, per bunch ..	2d. ,, 3d.
Artichokes, per lb.....	2d.	Savory, per bunch ..	2d. ,, 3d.
Asparagus, per bundle	5s. ,, 8s.	Thyme, per bunch ..	2d. ,, 3d.
Sea-kale, per punnet	2s. ,, 3s.	Parsley, per bunch ..	2d. ,, 3d.
		Mint, per bunch	2d. ,, 4d.
		Green Mint	6d. ,, 8d.

GRAIN.

FRIDAY, MARCH 14.—The arrivals continue moderate for English Grain, and the only supply of Foreign consists of Oats, of which there are about 14,000 quarters. To-day the trade for Wheat has rallied considerably, and 3s. to 4s. more money has been paid. Barley finds a better trade, and higher prices result. The demand for Oats is still contracted, but Factors require full prices. Beans, Peas, and all other Grain are firm at Monday's prices. Town-made Flour is advanced 2s. per sack, and in other descriptions these is a considerable improvement.

WHEAT, Essex and Kent red	59s 64s —s, fine 66s —s —s
Ditto ditto white	63s 72s —s, fine 73s —s —s
Foreign, red	67s 75s —s, fine 76s 84s —s
Ditto white	72s 85s —s, fine 85s 89s —s
BARLEY, distilling	35s 36s, fine 36s 37s
Malting	38s 39s, fine 39s 40s
MALT	70s 73s, fine 73s 76s
BEANS, pigeon.....	50s 52s —s, new 49s 50s —s
Ticks for splitting	38s 41s —s, new 37s 39s —s
Harrow	47s 50s —s, new 42s 45s —s
OATS, English feed	20s 21s, fine 22s 23s
Scotch potato.....	29s 30s, fine 30s 32s
Irish feed white.....	20s 21s, fine 21s 22s
Ditto black	21s 22s, fine 22s 23s
Foreign feed free	20s 21s, fine 21s 22s
Poland or brew	23s 24s, fine 24s 25s

HOPS.

BOROUGH MARKET, FRIDAY, MARCH 14.—A moderate business is doing in the best descriptions of Hops, and some of the finest of brown qualities find rather a better demand than of late. The currency is firm at about the following quotations:—

Weald of Kents, 60s. 80s. to 95s.; Sussex Pockets, 50s. 75s. to 90s. per cwt.

HAY AND STRAW.

Clover, 1st cut per load	120s. to 130s.	Meadow Hay	110s. to 130s.
Ditto, 2nd cut	90s. ,, 115s.	Straw, flail.....	30s. ,, 33s.
		Ditto, machine	28s. ,, 30s.

POTATO.

SOUTHWARK WATERSIDE, MARCH 10.—No alteration in the market; sales slow at the following quotations:—

Kent and Essex Regents, 70s. to 80s.; ditto Shaws, 70s. to 80s.; York Regents, 60s. to 90s.; Lincolnshire Regents, 50s. to 60s.; Wisbeach and Cambridge Regents, 55s. to 65s.; Bedford Regents, 70s. to —s.; ditto Shaws, 70s. to 80s.; Norfolk Regents, —s. to —s.; ditto Whites, —s. to —s.; Scotch Regents (East Lothian), 60s. to 65s.; ditto (Red Mould), 70s. to —s.; ditto (Perth and Fife), 50s. to 65s.; ditto (North Country), —s. to —s.; Dahlias and Rattlers, —s. to —s.; Blues, —s. to —s.; Orkney Reds (East Lothian), 50s. to 55s.; ditto ditto (Red Mould), 60s. to —s.; Scotch Cups (Perth and Fife), 40s. to 50s.; ditto (North Country), ex-Ship, 35s. to 40s.; ditto, ex-Store, 25s. to 30s.; Irish, 40s. per ton.


POULTRY.

The time of year is telling on poultry, and good, tender birds are becoming scarce, while some make large prices. There are many unsaleable for want of quality.

Large Fowls 6s. 6d. to 7s. 6d. each.	Teal.....	1s. 9d. to 2s. each.
Smaller do. 4s. 0d. to 4s. 6d. ,,	Guinea Fowl 3s. 3d. to 2s. 6d. ,,	
Chickens.. 4s. 0d. to 4s. 6d. ,,	Pigeons.....	10d. ,,
Goslings..... 9s. to 9s. 6d. ,,	Rabbit... 1s. 5d. to 1s. 6d. ,,	
Duckings 5s. 0d. to 5s. 6d. ,,	Wild Ditto .. 10d. to 0s. 0d. ,,	
Wild Ducks 2s. 3d. to 2s. 6d. ,,	Larks .. 2s. 6d. to 3s. 0d. per doz.	
Widgeon.. 1s. 6d. to 1s. 9d. ,,		

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WEEKLY CALENDAR.

D M	D W	MARCH 25—31, 1856.	WEATHER NEAR LONDON IN 1855.				Sun Rises.	Sun Sets.	Moon R. & S.	Moon's Age.	Clock bf. Sun.	Day of Year.
			Barometer.	Thermo.	Wind.	Rain in Inches.						
25	TU	EASTER TUESDAY. LADY DAY.	29.621—29.402	43—18	N.E.	—	53 a 5	19 a 6	11 2	19	5 59	85
26	W	Helops violaceus.	29.662—29.645	45—29	N.E.	—	50	21	morn.	20	5 41	86
27	Th	Melandrya caraboides.	29.821—29.786	51—27	S.	—	48	23	0 19	21	5 22	87
28	F	Calandra granaria.	30.230—30.029	41—31	E.	29	46	25	1 33	22	5 4	88
29	S	Calandra lignaria.	30.434—30.420	44—25	N.E.	02	44	26	2 39		4 45	89
30	SUN	1st, or LOW SUNDAY.	30.438—30.418	46—29	N.E.	—	41	28	3 31	24	4 27	90
31	M	Latridius porceatus.	30.408—30.375	45—22	N.E.	—	39	29	4 10	25	4 9	91

METEOROLOGY OF THE WEEK.—At Chiswick, from observations during the last twenty-nine years, the average highest and lowest temperatures of these days are 53.1°, and 33.9°, respectively. The greatest heat, 75°, occurred on the 27th, in 1830; and the lowest cold, 14°, on the 25th, in 1850. During the period 123 days were fine, and on 73 rain fell.

THE March Meeting of THE ENTOMOLOGICAL SOCIETY was held on the 3rd instant, and was very fully attended, the President, W. W. Saunders, Esq., F.R.S., being in the chair. The donations of publications to the library were very extensive, including the publications of the Royal Society, the Royal Agricultural Society, the Society of Arts, the Zoological Society, the Entomological Society of Stetten, &c.

The President exhibited a new and remarkable Longicorn Beetle, from Northern India. Also, a specimen of the small Shrimp-like animal found occasionally in wells, which had been taken in a jug of water from a well at Wandsworth, and which Mr. Westwood identified as the *Gammarus subterraneus* of Leach, and as belonging to Schiodtes, blind genus *Niphargus*.

Mr. Lubbock mentioned the capture of another specimen in a well at Bromley, in Kent.

Mr. Samuel Stacey exhibited a specimen of the handsome Moth, *Episehnia diversalis*, of Hubner, which had been captured by Mr. W. Mytton, on October last, flying in a plantation near Hurstperpoint, Sussex. Proving the species to have been improperly rejected from the British lists by recent writers. He also exhibited a selection from the collection of small Moths, formed in Borneo, by Mr. Wallace. Many of the species were remarkably beautiful and curious in their forms, and Mr Adam White, who made some observations on their various peculiarities and geographical range, took the occasion of advising a more general investigation of exotic entomology than was customary with English entomologists, not only from the interest of the subjects themselves, but also with the view of more liberally encouraging the various persons who are engaged in foreign countries in forming collections for sale.

Mr. Stainton exhibited the Caterpillar of a Moth which had been vomited by a person who had previously suffered considerable pain. It appeared to belong to the genus *Ephestia*, and had, probably, fed upon dried figs, which the patient had eaten.

Mr. Hudson exhibited living specimens of the small *Stag Beetle*, both in the larva and perfect state, taken out of an old Ash-tree; and Mr. Walker, specimens of the *Cockchafer* and *Burying Beetle*, both found alive underground, being several months before their usual time of appearing in the perfect state.

Mr. Tapping read a note on the supposed destruction of daguerreotype pictures, owing to the presence of minute Mites (which Mr. A. White identified as *Chey-*

letus eruditus), and which become fixed to the surface of the picture, causing the surrounding space to fog off. The subject was one of great interest, as a committee had been appointed, at the suggestion of Prince Albert, to investigate the cause of the destruction of this class of objects of art. It was supposed that the Mites, which are occasionally found in considerable numbers in old flour, had been deposited round the edge of the plates with the paste by which they had been fastened in their frames. The specimens are exceedingly minute, of an oval form, with very long feathery hairs scattered over the body.

Mr. Stainton exhibited leaves of the Scotch Fir, ruined by the larvæ of a very minute Moth, *Ocerostoma pinearella*; and the Rev. Mr. Hawker, a singular variety of the *Garden Tiger Moth*, with the dark markings of the wings nearly obliterated.

Mr. Wollaston exhibited a portion of his singular collection of Madeira insects, which he had captured during the preceding season, consisting of more than 10,000 specimens, including a great number of novelties.

Mr. Lubbock read a note on the structures of the legs of the Shrimp, genus *Mysis*.

Mr. Westwood read a communication, addressed to the Society by Mr. Botting, of Hurstperpoint, relative to the destruction of his wheat crop by minute grubs, of which specimens were sent, and which Mr. Westwood identified as the very young larvæ of a species of Daddy-long-legs, probably *Tipula maculosa*, or an allied species. The earth swarmed with them to a great extent, and the young plants were gnawed off at a short distance below the surface of the ground. Mr. Westwood stated, that he had also received communications from other parts of the country, complaining of the destruction of the wheat crop, but in these instances, the injury was committed by the very small grub of a two-winged Fly, most probably the *Oscinis vastator* of Curtis, which fed within the stems of the young wheat. The extirpation of these two destructive species of insects was attended with great difficulty, and, from the difference of their habits, they must be treated differently.

Mr. Pascoe and Mr. White, respectively, read descriptions of various new species of *Longicorn Beetles*, recently sent from Borneo, by Mr. Wallace.

Mr. Westwood read the description of a fine, new, and large species of Butterfly belonging to the family *Morphidæ*, from Borneo. Unique in his own collection.

Mr. Curtis communicated a note from Mr. Mac Lean,

of Colchester, giving an account of the transformations of the Brimstone Butterfly, *Rhodocera Rhamni*, and proving that the insect is not double brooded, as has been mentioned by recent writers.

Mr. Newman read a note on the parturition of *Dorthisia characias*, a curious insect allied to the Coecidae, and Mr. Baly read the description of a new genus of *Chrysomelidae*, from central tropical Africa.

HORTICULTURAL SOCIETY OF LONDON.

REPORT FROM THE COMMITTEE APPOINTED AT THE SPECIAL GENERAL MEETING OF THIS SOCIETY, HELD ON THE 5TH OF FEBRUARY, 1856, UNDER THE FOLLOWING RESOLUTION:

"That a Committee of nine Fellows of this Society be appointed to investigate the whole of the accounts, and consider what is best to be done as to the continuance of the Society; such Committee to report to an Adjourned General Meeting of the Society on the 11th of March, at One P.M."

In accordance with this Resolution, the Committee of Inquiry have met from time to time, and after a full and minute investigation of the accounts, have great pleasure in reporting that they have been well and correctly kept, and do credit to the Officers of the Society; nor must they omit to acknowledge the readiness of those Officers to impart every information which might aid the inquiry.

Before they proceed to the consideration of the next part of their business, your Committee think it necessary to state, that all the information which has reached them concurs to show that the Fellows are extremely anxious to preserve the Gardens; and the strength of this feeling has been further proved by some of them having been induced, by the mere rumour that the surrender of them was intended, to withdraw their subscriptions. Indeed, it almost amounts to a forfeiture of the Charter, for the Society was incorporated expressly, "for the improvement of Horticulture in all its branches, ornamental as well as useful;" and it is obvious that it cannot be practically improved, if no example of improved practice in the cultivation of fruits and flowers can be exhibited for imitation, and if there were no opportunity of testing the value of any new horticultural theories by actual experiment; in short, a Horticultural Society without a garden would be like a crew of sailors without a ship, or army without weapons. In answer to this it may be said that, according to the scheme propounded by the Council, enough of the garden was to be retained for experimental purposes; but this is impossible. The Duke of Devonshire has signified to the Committee, through his agent, that the Society must have all or none, his Grace will not let us retain a mere fragment for ourselves, and throw up the remainder. Moreover, the preservation of these Gardens in their entirety for its present purposes is an object of national importance; the Arboretum contains one of the most valuable and diversified collections of rightly-named trees and shrubs to be found in this country, or, perhaps, in all the world; and there young gardeners and foresters may learn the names, and characters, and habits of the plants by which gardens and parks may be adorned. But the Orchard, however little it may be visited by those who repair to the Garden only for amusement, or to see the flowers, is a still more valuable feature of the property; for it is without any competition elsewhere, and its value is increasing every year, for it takes a great length of time to bring a collection of this sort to perfection. Many sorts of fruits that are rashly or ignorantly praised, have to be tried, their names have to be verified, for they are often incorrect, and their merits have to be proved and described, if they possess any; some are shy bearers, and are easily affected by unfavourable seasons, and it is not thought fair to pronounce sentence upon them till they have been tried for several years, when they are rejected as worthless (and this has been the case with very many), their places have been supplied by others, which have to undergo the same lengthened ordeal; but the result has been, that, though some of the more recent introductions are yet young, and have not arrived at their full bearing, yet the Orchard contains almost every variety of tree which is likely to be useful in this country. How great, then,

is the advantage of this to the whole of the British Islands, both directly and indirectly! for not only the Fellows of the Society have it in their power to obtain grafts of the most valuable sorts for their own orchards, without any fear of a mistake in the name, but those, too, who, not being Fellows of the Society, depend entirely for the supply of their gardens upon the respectable nurserymen who are, have the same assurance that the trees which they purchase are correctly named. The number of choice trees thus named, from which grafts may be obtained, is about 1,600.

Since, then, it would not only be a disaster, but also a disgrace to English Horticulture, if a Garden of this description were sacrificed without some overwhelming necessity, we next proceed to the task assigned to us of devising some means to avert this calamity, for with the Gardens the Society itself must stand or fall.

We have come to the conclusion that much may be done by reorganising the management of the Garden, and that the income of the Society may be much increased. At present, for the management of the Garden there are two head gardeners with a salary of £100 each, both able and excellent men in their own departments, but both independent of each other, and placed under the general superintendence of Dr. Lindley. Of the scientific attainments of the Vice-secretary it is impossible to speak too highly, or of the advantage which the Society has derived from his unwearied exertions to maintain its character; but we are of opinion that he has been treated unfairly by the Society in this—that its Officers have laid upon him the whole burden of the most minute details in the Garden, as well as in the correspondence, and have exacted more from him than any one man could usefully perform: and this view of the case is confirmed by a Resolution recently proposed by the Council; namely, to institute a regular system of inquiry into subjects of importance connected with Horticulture, throughout the kingdom, by means of Special Committees, whose Reports will be communicated to the monthly meetings, and otherwise made public; these Special Committees, which would form so many centres, from which the love and study of Horticulture would be diffused through their respective neighbourhoods, and by which attention would be called to the operations and merits of the Society, can best be organised by the Vice-secretary, and would entail upon him a large amount of administrative labour, and a great increase of correspondence; nor is this all, for other projects are announced to be in contemplation, which would be highly valued by all those who look to the Society, not only for amusement or profit, but for instruction too. The success of these schemes will very much depend upon the assistance of the Vice-secretary, and occupy a great portion of his time, besides that which is required for the determination of new seeds and plants. It is desirable, therefore, on every account, that he should be enabled to devote himself entirely to the science of Horticulture, by relieving him from all other responsibility.

The Committee therefore propose, that the management of the Garden and Exhibitions shall be confided to some one practical man of first-rate skill and energetic character, who shall have the superintendence of every department, and try to raise the reputation of the Garden as a model of good management for all other gardens, while at the same time he may be able to develop the resources of the Society, and thus to improve its finances. It is absolutely necessary that the person filling this office should thoroughly identify himself with the interests of the Society; and though never losing sight of a proper economy, yet he should manage the Gardens in the most efficient manner with regard to beauty, utility, and profit; for which purpose, he should have the absolute control of all the persons employed in the Garden, subject only to the authority of the Garden Committee, selected from the Council, who will take care that nothing is done to compromise the character of the Society, or to involve it in an unnecessary expense. But while the Committee would have this kept in view, they are of opinion that it should be conducted more as an experimental Garden than heretofore; that experiments should be there tried, not only on seeds, plants, and roots, but also on implements, boilers, manures, &c., provided that the persons bringing them to be tested, do so at their own expense, and that honest and trustworthy Reports of their success or failure be inserted

in any publications which the Council may see fit to sanction. Should the plan here proposed for the management of the Garden be adopted, and should it consequently be necessary to dispense with the services of any of those at present employed in the Garden, the Committee earnestly recommend them to the good offices of the Council, if other situations can be found for them; especially for Mr. Thompson and Mr. Gordon, both having been for a great many years faithful servants of the Society, both of the highest character and worth, and the Society, which has so long enjoyed the advantage of their services, cannot now dismiss them without some sense of self-reproach, nor without some discredit in the estimation of all right-feeling persons.

There are two other alterations in the construction of the Society, which we deem essential to its future success; having noticed that three at least, if not more, of the Members of Council named in the Charter were practical Horticulturists, we consider it expedient that the same principle should still be our guide, and that one-third of the whole number should consist of such persons, as the most competent judges of the condition of the Garden, and most likely to take a professional interest in its proper management, one being always included in the annual change directed by the Charter. Provided always that, while in office, no Member of the Council shall be allowed to take advantage of the position, in obtaining plants for themselves without a recorded permission from the Council. The other alteration, which we recommend on the same grounds, will be much facilitated by the adoption of this Rule. At present the Garden Committee consists of five Members of the Society, besides three of its Officers. We consider that those three ought to be practical Horticulturists, and on the Council.

With respect to the increase of income, it is obvious, that one mode of increasing it is by diminishing expenditure; but your Committee have looked minutely into the details, and are of opinion that the council has already reduced it as low as the circumstances of the Garden will permit. There is one point, however, to which they wish to call the attention of the Council: while they quite approve of a liberal distribution of grafts and cuttings and seeds, and plants introduced by the Society, they do not approve of an unprofitable waste of time and labour, and house-room and expense, in the wholesale propagation of common things for the benefit of a few Fellows, who might easily obtain the same things at a trifling cost elsewhere. A revision of the rules in this department would be very serviceable. The income derived from the sale of fruits might be increased.

Doubtless something might be gained by discontinuing all publications; but it would ill become an Horticultural Society to refuse to disseminate horticultural knowledge through the land, and it would be a great hardship upon those distant Members, who, being only occasionally resident in London, derive little other benefit from their subscriptions, except a few seeds and cuttings. The recent experience of the Exhibitions at Chiswick has filled the minds of timid people with misgivings, which, after all, may be unfounded, and if, in future years, they are confined to two, one in June, and one in July, and the tickets if not used in the Garden, are understood to give admission to the Exhibition in Regent Street, there is reason to hope that they may at least be self-supporting, notwithstanding the expense which must necessarily be incurred by a wise liberality in encouraging exhibitors to encounter the risk, expense, and inconvenience of sending their plants for exhibition. The untoward circumstances which operated so disastrously upon the finances of the Society the last two years may be looked upon as an unhappy incident which may never occur again. With such means and appliances as the Society possesses in its Garden for exhibitions of unsurpassable excellence, why should the Society despair? The season cannot always be unpropitious; brighter days may yet be in store for the Society. So long as the Society is solvent, some risk should surely be incurred to secure the continuance of a reunion which contributes so much to the happiness of so many families; we venture, therefore, to exhort the Fellows not to be faint-hearted, but to trust to such a reinforcement of their numbers, by increasing the popularity and celebrity of the Society, as may carry it through all its difficulties in triumph. We would advise that Monthly Meetings should be held at Regent Street, as heretofore, at which prizes should be given for any

article of vegetables, fruit, and flowers of great merit or novelty. The basis of this increased popularity is to be found in the sixteenth and seventeenth resolutions of the Council, but the Committee suggest some important alterations therein. It is proposed, therefore, to admit two classes of subscribers, one paying, four guineas, as at present, who shall not only enjoy the exclusive privilege of sharing in the distributions from the Garden, but shall be entitled to a transferrable ivory ticket, which shall admit the holder to all the Exhibitions, to the use of the Library, and to all Meetings in the Society's rooms; the second class would consist of two-guinea subscribers, paying an admission-fee of only one guinea, and entitled to free admission to all Exhibitions and Meetings, and to all the other privileges of Fellows, except the ivory ticket and a share in the distribution of seeds and plants, &c. It is not proposed to interfere with the Life-Members and early Subscribers, who will be left on the same footing as heretofore; but that the present four-guinea Members may not have cause to complain, we propose to give them the option of either continuing with the same privileges as heretofore, with the addition of the transferrable ivory ticket, or of dividing their present four-guinea subscription in two two-guinea subscriptions, thereby remaining themselves, and bringing in some member of their immediate family, as a two-guinea subscriber, without payment of fees. Of course, the Subscribers so dividing their present four-guinea subscription would hereafter enjoy only the same privileges as the new two-guinea subscribers. All payments should be due on the day of election, and annually on the first of May, being paid in advance, as is the usage in other societies.

Lastly: since there are some heavy subscriptions remaining unpaid, and it is most essential to ascertain how far we can rely upon the assistance of the existing Fellows in carrying out the proposed experiments, it is highly desirable that a letter should be sent by the Council to every Fellow, the object of which would be, not only to obtain the most important assurance of continued support,—at least, for a year or two,—but to remind them, also, of their privileges, by reciting them, with which some are very imperfectly acquainted, and at the same time to test their feeling, and, through them, the feeling of the public, with respect to the value of those privileges respectively, so that the Council may be able to judge what those are with which it would be undesirable to interfere.

As one means of lessening the expenditure of the coming year, Dr. Lindley has given a noble example of self-denial, by voluntarily offering to give up his salary of £500 for one year, while this experiment to revive the Society is in progress, without withdrawing his valuable assistance. He made the same handsome offer in a letter to the Council, dated 18th July, 1854.

It is the earnest wish of some of the best friends of the Society, that a Subscription should be raised to pay off the loans, which bear an interest of 6 per cent., to the amount of £2,400.

Considerable Donations have been promised, in the hope of extricating the Society from its difficulties.

S. HOLMES GODSON, *Chairman*.

SOME VALUABLE BEDDING PLANTS.

DIFFERENT people have different ways of knowing when a spring is unusually late or unusually early, or whether its phenomena appear at an average date. Loudon, who was a good garden authority, put much faith in the times at which different trees and plants came into flower, as showing the backwardness of a spring, or the contrary; and, if I was to follow him, as I often have done, I could prove that the middle of this March is just three weeks later than the March of 1855, from a tree in the Rectory garden at Surbiton. This tree is a kind of *Prunus*, or one of the Plum Crabs, and was in full bloom last year on the 1st of March, but was not so this season till about the 20th of the month; while one of the best spring flowers we have come into bloom, in Surbiton, in my own garden, this season, on

the 14th of March, which is about the average time; but last year this plant did not bloom, in Surbiton, till the 2nd of April, showing that trees and herbaceous plants, at least, some trees, and some herbaceous plants, have an opposite way of telling the seasons.

Last April, I was told that in a lady's garden here, was in flower the best and showiest plant for a spring bed that ever was seen, but that no body knew the name of it. Knowing that a plant without a name must be a very rare thing indeed, I desired to see a flower of the stranger, and with the flowers came three or four leaves "plucked off" with the flowers, in such a way as insured me the plant which flowered on the 14th instant, and this will give the lady the first notion that any of her neighbours possess it; but she "plucked off" the leaves herself, and I could not resist the temptation of trying to root them, which I did. The plant is not rare, nor without a name, and it has a very common look; but of all the composites, or compound, or daisy-flowered plants, they are the most numerous of all the sections into which the vegetable kingdom is at present divided. I say, this Surbiton plant is the best spring-bedding plant of all of them, and it ought to be grown in a bed by itself, where it would flower from the middle of March to the second week in May, sometimes earlier and sometimes later. The trade name is *Doronicum Columnare*, alias *Columnæ*, and that is the best name to ask for it by from the nurseries; but the true name is *Doronicum Austriacum*, given it by Wildenow, but it was figured by Jaquin. No plant is easier to manage, and no spring garden should be without it, common as it looks. I should like to give the name of the lady in whose garden it does so well at Surbiton; but, then, our degree of civilisation prevents me; as out of the thousands who read this some would not think it rudeness to break on her privacy and write letters to her about it as if she were their own sister, as they did to Mr. Walton about his Propagating Case.

I never saw the plant in a nursery, or in a nursery catalogue, nor met a gardener who could tell which is *Doronicum Columnæ*, a bedding plant. The plant which goes by that name is a rough, tall shrubby plant, and not at all suitable to mass together; but I cannot find a reference to a figure of it any where, and I suspect the name is spurious. Can any reader of this put me on a better scent? *Doronicum Austriacum*, the one I recommend, is a dense patch, and only from six to ten inches high while in flower. It will remove in May, after flowering, and can, even as late as that, be divided into little bits, which may be nursed any where out of sight till next autumn, when, or very early in the spring, it should be removed into a bed to flower for the spring, just as we recommend for a bed of Polyanthus. My plant is but a morsel yet, else I would send it to Mr. Jackson to be propagated for the trade. Any nurseryman who may possess it ought to advertise it at once, as we are so short of real massing plants late in the spring.

Speaking of massing plants, how many hardy kinds can we furnish to help out Calceolarias and other pot plants? One of the best is *Enothera macrocarpa*, at six or eight shillings the dozen. It might be planted out of pots now, to flower next summer and autumn. Eight inches apart every way is the proper distance for it, but one might try a first bed of it at a foot apart, and after that increase it from cuttings, and double the number of plants in a bed easy enough, when six inches would not be too close after all. May is the proper time to increase it by cuttings, before the young shoots come to a flowering age. It does not come from seeds, and the roots are no better than Dahlia roots; they will not make plants unless they have buds or hidden eyes, while *Enothera prostrata*, alias *viraria*, will root and grow from any morsel of a root or stem. Old plants of this kind make the best beds, but young ones will do;

they are fond of it at the Crystal Palace, where two of their largest beds are full of it, and where it lives out the winter; but in many places it is apt to go off, more from damp, I believe, than from frost; still, we can number it among hardy bedders.

Then we have four hardy kinds of bedding *Campanulas*: two of them for beds, and two for edgings; the blue and white *Carpatia*, which ought to be taken up and divided by the end of March, or early in April, and they will bloom to the middle of September. The blue and white *Campanula pumila* are only fit for edging a bed; but if they are divided at the same time as the *Carpatias*, they will continue in bloom quite as long; but to leave them, from year to year, on the same spot, and without dividing, they are not worth looking at, as compared to the showy edgings I have seen and made of them. The white one, planted two or three inches apart, would make a capital edging to a bed of *Enothera prostrata*; but there ought to be sufficient room left for three rows of it round the bed to make a decided edging. We ought to bear in mind, that a bed looks much better without an edging of a plant in contrast, if you have not enough of that plant to make the contrast decided or telling; and yet the size or breadth of an edging is never, and need not be, in proportion to the size of the bed. A bed four feet across must have an edging just as wide, and no wider, than a bed forty feet across. I do not know two plants so thoroughly in unison, and yet so full of contrast, as a band, six or eight inches wide, of this little white *Campanula* round that little prostrate *Enothera*. If a wet season should "throw" the *Enothera* too much to leaf, as is often the case, the white band seems to make the best of the yellow, as it were, and make it look more decidedly yellow than it really is, when too many shoots and young leaves threaten to drown it, as we say.

The next best and most permanent beds are from hardy seeds—the *Sanvitalia procumbens* and *Saponaria Calabrica*. These two beds give less trouble than any of the rest, as all one has to do is to dig the beds in winter, and sow the seeds in March or April, and gather enough of it in the autumn to serve another year. I sowed a bed of each at the very beginning of March this season; but the first of April usually is time enough for them. Or, you might sow them in pots or pans, or in an out-of-the-way place, if the beds for them are now full of bulbs or annuals, or any spring flowers, and transplant the seedlings when such things were removed towards the end of May, or later. Both of them would flower earlier by being raised in heat, and nursed in shelter till the frost is over in May; but neither of them is improved by such heat or tender care. On some soils the *Saponaria* runs too much to growth before it comes into bloom, and dies off sooner than it ought, in consequence. Therefore, if you have experienced this, your best plan will be either to sow the seeds now, or before the middle of April, on an open border in the kitchen-garden, and transplant the seedlings early in June, putting them in patches six or eight inches apart every way. This checks the growth, and makes this, of all others, the most beautiful flower-bed in the garden. It will not do well anywhere between Surbiton and London without being thus transplanted; but towards Epsom, and in all the chalky districts in the country, it will do equally well either way; but without chalk, I cannot flower it here as I did at Shrubland Park, when it was "brought out;" neither can I flower the *Taygetes signata*, another hardy bedding-plant, from seeds, as I used to do on the chalk formation; and the reason seems to be, that the seedlings want to be twice transplanted on moist or rich land before they are finally planted in the flower-bed to bloom. Still, if I had no glass, or but very little of it, and was looking out for hardy plants to bed out, I should not pass over this *Taygetes*.

For a blue, hardy plant to mass, we have none better than the China Larkspur, *Delphinium sinensis*. In books this is called an annual, but it is not so in reality, but a long-enduring perennial, if it is taken right care of; that is, provided the roots are housed in the autumn with the same care as the *Salvia patens*, or the *Dahlia*, and to be planted out in April, at five or six inches apart. Under that treatment it will bloom early, and if care is taken to prevent ripening seeds, like Mignonette, it will bloom to the end of October; but that is not all its merits; we could easily get three distinct beds from the seedlings. The best blue, to begin with; then a pure white flower, which, if we did not choose it for a bed by itself, would make an excellent edging plant for a tall plant, or bed. Here another quality for an edging plant meets us. I have said that an edging to a small bed need not be wider than for a large bed; but a very low plant as an edging to a very tall one, say the blue *Salvia patens*, would look worse than no edging at all; therefore, this white variety, into which the *Delphinium sinense* runs, more or less, at each sowing, ought to be saved and kept by itself on purpose to form edgings round tall plants; and, without going any farther than the blue *Salvia* itself, here is the best edging for it, and the most appropriate that I know of; only let me remark that I never saw this combination, and, I believe, no one has; but that is no reason against it. There is no sort of difficulty about such an edging, nor will there be after it becomes general; for the same treatment will cover the two kinds of roots in the winter-management, and I vouch for it the combination will answer perfectly.

The third best shade in seedlings of this Larkspur is a light violet blue, as in the Neapolitan Violet, a very useful colour for a neutral bed, or to put in between pink and scarlet, or scarlet and purple, or any two colours which lessen the effect of each other. Few people are yet aware of the value of such kinds of plants; but you might call them the plenipotentiaries of the vegetable kingdom, who reconcile the differences, the wrong-headedness, or the strong-headedness, of the great ones among them, whether they be clothed in fine purple, in plush, or in scarlet, or be withal "as clean as pinks."

The *Zauchsneria Californica* is not so good as any of the foregoing; still, when a man is looking out for helps to keep him in bedding-plants that are hardy enough for a cottager, this is not to be overlooked. Neither the long frost of the winter before this, nor the black frost before last Christmas, so fatal to autumn-sown seeds, had any bad effects on the *Zauchsneria* in Surbiton, and on strong, heavy land it flowers far better than where it can run away at the roots with more freedom. Add all these together, or, rather, make a bed for each, and you will find an essential help in planting the garden, and be less in the power of *Verbenas*, and all such minxes.

D. BEATON.

MUTATION OF MATTER.—With a very near approach to truth, the human family inhabiting the earth has been estimated at 700,000,000; the annual loss by death is 18,000,000. Now the weight of the animal matter of this immense body cast into the grave is not less than 622,400 tons, and by its decomposition produces 9,000,000,000 cubic feet of gaseous matter. The vegetable productions of the earth clear away from the atmosphere the gases thus generated, decomposing and assimilating them for their own increase. This cycle of changes has been going on ever since man became an occupier of the earth. He feeds on the lower animals and on the seeds of plants, which in due time become a part of himself. The lower animals feed upon the herbs and grasses, which in their turn become the animal's; then, by its death, again passes into the atmosphere,

and are ready once more to be assimilated by plants, the earthy or bony substance alone remaining where it is deposited; and not even these unless sufficiently deep in the soil to be out of the absorbent reach of the roots of plants and trees. Nothing appears so cannibalizing as to see a flock of sheep grazing in a country churchyard, knowing it to be an undeniable fact that the grass they eat has been nurtured by the gaseous emanations from our immediate predecessors; then following up the fact that this said grass is actually assimilated by the animal, and becomes mutton, whereof we may perhaps dine next week. "Truth is stranger than fiction," and here is a truth that exemplifies the proverb. It is not at all difficult to prove that the elements of which the bodies of the present generation are composed have all passed through millions of mutations, and formed parts of all kinds of animal and vegetable bodies, in accordance with the unerring law of nature.—(*Extract.*)

PLANTS THAT MAY BE IN BLOOM IN MARCH.

STOVE PLANTS.

Achimenes picta; *Allamanda neritifolia*; *Aphelandra aurantiaca*; *Ardisia crenulata*; *Begonia fuschoides*, *manicata*, *coccinea*, *alba coccinea*, *nitida*, *Ingramii*, *heraclifolia*, *hydroctalifolia*; *Bilbergia iridæflora*; *Bletia Parkinsonia*, *hyacinthina*; *Centradenia rosea*; *Conoclinium ianthemum*; *Canarina campanulata*; *Dichorisandra thyrsifolia*; *Iranthemum verrucosum*; *Epiphyllum speciosum*, *Aekermanii*; *Euphorbia Jacquiniiflora*, *punicea*; *Franeiscea confertiflora*, *latifolia*, &c.; *Gardenia radicans*; *Gesnera elongata*, *Cooperii*; *Goldfussia glomerata*; *Hamiltonia scabra*; *Inga pulcherrima*; *Impatiens latifolia*, and *latifolia alba*; *Justicia flavicoma*, *coccinea*, &c.; *Phaius grandifolius* and *P. Wallichii*; *Ruellia formosa*; *Rogiera amœna*; *Rhynchospermum jasminoides*; *Strelitzia reginæ* and *ovata*.

GREENHOUSE PLANTS.

Acacia grandis, *armata*, *incarnata*, *rotundifolia*, *spectabilis*, *Drummondii*; *Brahysema latifolia*; *Bauca rubra*; *Boronia pinnata*, &c.; *Bossiaea ovata*, *rotundifolia*, *cordifolia*; *Camellias*, such as *Colvillii*, *delicatissima*, *elegans*, *tricolor*, *Sweetii*, *Fordii*, *Woodsii*, *Donkarii*, *alba* *subriata*, *double white*, &c.; *Calecolarias*, a few early ones; *Cinerarias*; *Carnations*, tree-perpetual kinds; *Callistemon phœniceum*; *Chorozema flava*, *varia*, *angustifolia*; *Cantua dependens* and *bicolor*; *Cuphea platycentra* and *C. eximia*; *Cytisus racemosus* and *siliipes*; *Coronilla glauca*; *Cyclamens*; *Daphnes*; *Dielytra spectabilis*; *Dillwynia sericea* and *tenuifolia*; *Diosma rubra*; *Epaeris hyacinthiflora*, *hyacinthiflora candidissima*, *miniata grandiflora*, *candidissima*, *campanulata rubra*, *impressa*, *longiflora alba*, *corolloides*, *Tautoniensis*, *optima*, are fine varieties, among many that are good; and *alba odorata* is, as its name implies, very sweet, and almost the only one that is so; *Erica rubra calyx*, *hyemalis*, *Wilmorea*, *Linnæoides*, *vernalis*, *bicolor*, *Lambertiana rosea*, &c.; *Euchilus oboordatus*; *Fuchsia serratifolia*; *Gardoquia multiflora*; *Gastrolobium acutum* and *calycinum*; *Habrothamnus elegans*; *Hardenbergia Comptoniana*; *Hovea purpurea* and *crispa*; *Kennedyia Marryattæ* and *nigricans*; *Lachenalia tricolor*, &c.; *Mignonette*; *Mirbelia grandiflora*; *Oxalis*, as before; *Pimelea decussata*; *Primula Sinensis*, and *double white* and *pink*; *Oranges*, *Rhododendrons*, of the arborea varieties; *Salvia gesneræflora*; *Tropæolum Lobbianum*, var. *Triomphe de Gand*, *Tropæolum pentaphyllum*, late tubers, kept growing in winter; *Violets*, &c.

FROM FORCING-PIT.

Azaleas, all the best kinds; those in a cool greenhouse will be swelling their buds. *Bulbs*, as Hyacinths, Tulips, Jonquills, Narcissus; the beautiful *Narcissus bulbocodium* will bear with the assistance of a cold pit. Rhododendrons, Kalmias, Lilacs, flowering Currants, *Weigelia rosea*, *Deutzia scaber* and *gracilis*, Roses, Pinks, and varieties of the Amaryllis group, &c.

Let it be clearly understood that such a list as the above could only be grown where the space is ample and the means extensive. For a small stove—a Phaius, a few Begonias, and a few Justicias, (the *flavicomis* is invaluable, at this season, for its yellow colour,) and a few Euphorbias, with Hippeastrums, and a few Ferns, would present a fine appearance. For a small greenhouse—a Cytisus, a Coronilla, two Acacias (*armata* and *grandis*), along with Camellias, Epacris, Cinerarias, and some Dielytras, would make a fine show for this and the following month.

According to custom, I will now make a few short remarks on plants that have not hitherto been noticed in this series of articles.

CANARINA CAMPANULATA AND LÆVIGATA.—These have received their generic name from being natives of the Canaries. The blooming period will depend upon the time of starting them into growth; but they bloom most naturally about this period. They are very graceful, herbaceous, Campanula-like plants, with brownish-orange flowers, produced liberally from side-shoots. It is difficult to propagate them, unless by division of the roots, or slipping off young shoots, just after growth has commenced, and when two to three inches in length. When in bloom, at this period and following months, they will stand very well in the greenhouse. When the leaves have turned yellow, and the stems are cut down, (they rise from three to six feet in height,) any cool place, with an average temperature of 45° will suit them; and if the pots stand on a dampish floor they will want little or no water until the shoots begin to push. Then, to get them to come kindly and strong, the heat of a mild hotbed, or a plant stove, will be relished by them, giving them abundance of light, and lowering the temperature as the plants come in bloom. What shifting they require should be given when the young shoots are two or three inches in length, shaking away a good portion of the old soil and adding fresh in a similar or larger-sized pot. Fibry sandy-loam and turfy-peat will grow them well. The pots must be well drained. A fine plant always tells that thought and care have been exemplified.

EUPHORBIA PUNICEA.—This plant, though of a more stubby, shrubby habit, may almost be regarded as a miniature of the *Poinsettia pulcherrima*, the floral bracts at the points of the shoots being of the most dazzling crimson-scarlet. It has strong claims to attention, though destitute of the wreathed gracefulness of the *Euphorbia jacquiniiflora*. Small shoots will strike freely in sandy, gravelly soil, in a smartish heat; but in all these Milk-worts the plant should be dry, almost to flagging, before the cuttings are removed. It is desirable to give this plant a permanent shrub-like character; and, therefore, when young, the points of the shoots should be picked out when the plant is dry, to cause them to break into more shoots. These points must not be touched in a flowering plant, as it is there the flowers are produced. Sandy-loam, with nodules of broken bricks and pieces of lime-rubbish will grow it well. In summer, from May to October, it would thrive in a greenhouse; at other times it requires the temperature of the plant-stove. The *Hamiltonia scabra*, mentioned in the list, is synonymous with *Spermadietyon azureum*, already noticed.

INGA PULCHERRIMA.—The beauty of this Acacia-Mimosa-like plant, consists in the finely-divided foliage,

and the brilliance of the loose balls of the long, feathery, crimson stamens. It is easily propagated by pieces of the young wood getting a little firm, or by short, stubby side-shoots, inserted in sand, under a bell-glass, and in a sweet bottom-heat. It will grow well in peat and loam well-drained. The secrets, if any, of success are these:—When the plant has done flowering prune back the shoots pretty freely, give little water until they break afresh. When several inches in length, shift, if necessary, use the syringe freely, and give what heat and moisture the plant will stand, 60° to 65° at night, and 70° to 85° during the day. By September, give all the light and air you can to ripen the young shoots; a cold pit would be a good place then. From the middle of October, to the time you wish to start the plant, say February, a night temperature of 45° or so will do, and little water will be wanted. When supplied with increased heat and moisture, 55° to 65° at night, and 5° to 10° more during the day, the flower-buds will swell and then expand, when the plant should be kept a little cooler and drier. It is a pity the flowers do not last long, as the colour is very brilliant, and the appearance of the plant altogether very elegant.

PHAIUS GRANDIFOLIUS.—This used to be the *Bletia Tankerville*, and the treatment has been given in these pages. Propagated like the generality of earth Orchids, by division of the roots and the strong pseudo-bulbs. A large mass, in a huge pot, with a great number of stont flower-stems, with whitish-brown flowers, has a striking effect; but for small houses, pots from six to eight inches in diameter, containing one or two strong shoots, answer better. The following is the outline for successful culture. When the flower-stems are removed allow all the plants to rest for a week or so. Then divide the roots, or repot, or merely top-dress, as seems convenient, as the same pot may do for a couple of years if desirable. The soil should be fibry-loam and peat, most of the former, and a good many hard nodules of cow-dung mixed with it. If merely top-dressed, a good portion should be old cow-dung. A warm, growing place should now be given. If plunged in a little bottom-heat, all the better, and shading from bright sunshine will be required at first. As Autumn approaches, every ray of light should be given, and less water imparted, enough, however, to prevent any thing like flagging. As the days shorten, heat and moisture must be lessened. In the winter months the plants should be next to dry, and a temperature of 45° at night will be high enough. When, after January, February, and onwards, the plants are placed in heat, and moisture applied, the flower-stems will soon show, and then manure-waterings and rich surface-dressings will give them vigour. A few plants come in well now with Begonias, &c.

PHAIUS WALLICUM.—This very brilliant plant will bloom about the same time, if treated on the same principles, with a little variation in these matters:—1. The soil should be rather more open, rough dried pieces of loaf-mould about half decomposed, and some lumps of ehareoal, with rather more peat. 2. The base of the pseudo-bulb should not be much below the rim of the pot. 3. The temperature in the rest period should seldom be below 50° in winter. The flower-stems are much stronger, the leaves much larger than *grandifolius*, fewer flowers are produced on a stem, but they are larger and of a fine colour, the sepals being a brownish-yellow and orange, and the lip orange, tipped with pink. Altogether it is a fine thing, well worthy a little attention, and, as yet, comparatively scarce, as it does not throw up shoots so freely as *grandifolius*. I have felt my fingers itching to have a coaxing about its roots for some time, though, after supplying every body that would have *grandifolius*, I have frequently sent lots to the rubbish heap. It will be long before any of *Wallicii* finds its way there.

PHAIUS ALBUS.—I place this here to meet an inquiry. The flowers are white, with a little purple. It generally blooms in summer and autumn, and on shoots of the current year's growth. It wants still more open material than *Wallichii*. To be almost kept dry, and about 50° after the leaves fade. After the shoots begin to move, the plant should be shifted if it requires it, receive plenty of heat and moisture; if plunged in bottom-heat, all the better. When the flower-stems appear, and especially when they begin to open their blooms, a drier atmosphere will be needed.

R. FISH.

(To be continued.)

COAL TAR PAINT.—The following is an excellent recipe for preparing Coal Tar for iron rails, posts, and all out-door work:—

1 gallon of Coal Tar.

1 quart of Spirits of Turpentine.

The Tar to be boiled half-an-hour, and the Turpentine added when the Tar is cooled down to lukewarm.—J.

SEASONABLE NOTES FOR THE KITCHEN-GARDEN

If the work recommended to be done the last few weeks has all been duly attended to, the present will not be so busy a season as it sometimes is; but, if unavoidable circumstances have prevented such work being done, the time has now arrived when it can no longer be delayed without certain loss. The latter end of March and beginning of April is a period in which so many descriptions of seeds must be sown and some things planted; and, as the progress of the young plant is more rapid now than in February, the work must be attended to at once, and a notice of some of the crops requiring attention at this time will, perhaps, be useful to young beginners.

POTATOES.—As all experience tends to prove that the earlier this crop is planted the more likely it is to escape the ravages of disease, it is to be hoped that the readers of *THE COTTAGE GARDENER* have all planted their allotted space with this crop long before this article reaches them. If not, or it may happen that in very late, cold districts the ground may never have been in condition to receive the seed until now, it is desirable to lose no time in putting in the whole crop; and bearing in mind that uncut sets are more likely to produce a crop than cut ones, it is advisable to plant whole ones only. The smallest of those sorted out for table use will do, or, rather, it is customary in assorting them in autumn to make three kinds, *i.e.*, the large ones for table use, the very small and unsound ones for the pig, and the intermediate ones for planting. Amongst the thousand-and-one preventives to disease, perhaps a dressing of lime and coal-ashes is as useful as any other.

CELERY.—The main crop of this must be sown, at the latest, by the third week in March, unless some artificial heat can be supplied, in which case, a week or two may be gained; but, at all times, I would recommend the main crop of Celery to be sown on some raised-up bed, as an old spent hotbed, or other place. A covering of glass is not so requisite here as in some other cases; and, as every inch of glass must be in use elsewhere, it is not absolutely necessary except in cold situations. One good red and one good white variety are all that are wanted. Sow moderately thick, cover lightly, the surface being made very fine, giving water afterwards, as the weather and other circumstances render necessary.

TOMATOES.—These, potted off now to the extent wanted, two or three plants in a four-inch pot, and placed in gentle heat, will speedily become useful, good

plants. They must be gradually hardened off afterwards, so as to be fit to plant out for good by the 1st of May. There are several kinds, but the ordinary red one is most used. A small yellow one is also occasionally sought after.

SWEET MARJORAM, BASIL, AND OTHER ANNUAL SWEET HERBS, must now be sown, if not done before. Where but a small quantity is wanted, pans placed in heat will do, and the seedlings being pricked out in some warm corner during the season, they will make a better crop than when grown where sown. *Basil* is more tender than *Sweet Marjoram*, and, unless sown in pans as above, it need not be sown until May, and then had better have the aid of glass.

TURNIPS.—There are many things more easily procured than an early crop of Turnips; for, though good seed will vegetate as soon as that of any thing else of the numerous family it belongs to, the plants seem not to possess the qualification of resisting the temptation to run to seed before they arrive at a useful condition, when they are subjected to the least amount of frost in the spring. There is something singular in this, for the plant does not seem to suffer immediately from the effects of frost; but, afterwards, it is found out that the centre of the plants look a blue tint, and the whole crop starts simultaneously to seed; it is then far better to cover up the young brood for a few nights at first, until danger from frost is over. The *American Stone* and *Snowball* are as good as any for early use.

SPINACH.—This may be sown at all seasons, from the 1st of February until September; generally, a row of it between the lines of Peas answer best. Never allow it to remain on the ground after it is no longer useful. Take care that birds and mice do not destroy the seed, as it is scarcely less attractive than the Peas to which it is often in close proximity.

LETTUCE.—Sow several kinds of this, especially a good *White* and *Brown Coss* and a *Cabbage Lettuce*. Also, plant out any that may have been standing over winter in some sheltered seed bed. This vegetable likes a rich, generous soil at this season, although, for standing the winter, one not too much so is better. Keep a sharp look out for slugs in the various crops, and occasional dustings with wood-ashes will both promote the health of the plants and tend to keep these crawling intruders away.

CAULIFLOWER AND BROCOLI.—The former of these may be sown at various times up to the beginning of July, and after that in the third week of August and first week of September. The September sown crop being the one to stand the winter, either under glass or in some way or other protected. The first spring sowing had better be under glass, as plants can hardly be too early. Subsequent sowings may be in the ordinary way. *Brocoli*, of some very late sorts, may be sown now, but the autumn and early winter kinds need not be sown until May.

BRUSSELS SPROUTS AND THE VARIOUS COLEWORTS may all be sown as early as they can be; the first-named being, perhaps, the most useful of all the family; but *Curled Greens*, *Chou de Milan*, *Savoy*, and other things may also be sown in such quantities as are wanted, not forgetting *Red Cabbage*, and a little of some good *Summer Cabbage*. The varieties resembling the old *Vanauch* being the most esteemed for summer use, although, it must be confessed, they are not the best for standing the winter.

ASPARAGUS.—Where a fresh plantation of this is wanted, let the ground be well prepared before-hand by deep trenching and enriching it well with manure of some kind; but it is very good practice to prepare the ground somewhat later in the spring, and sow the seed in some bed on a warm border, and when the plants are about six inches high let them be carefully taken up

and planted in the beds allotted them. There is no advantage in having them too thick, although it is to be observed, that it is other things which govern the welfare of the crop. Remove all weeds that may be coming up on the old crop; and if the surface-soil has not been loosened let it be done during March, or not at all, as the plants will be on the move, and injury will be done if it be left until later.

SEA-KALE.—A sowing of this may be made now to replace any that may be lost in the principal quarters. Young plants, one or two years old, are also best to force for early supply. Like Asparagus, this also must have good ground, deep and well prepared, otherwise the progeny will be small.

PEAS AND BEANS.—The former of these may be sown as often as the leaves of the preceding sowing show themselves above ground; but this is not an accurate direction where several kinds are grown, as there is often a week or more difference in the times at which they become fit for use. *Beans* are less prolific varieties. The *Windsor* is not so early as the *Long-pod*, and, consequently, when the former succeeds the latter the sowing must not be delayed so long as it would be if one crop of *Long-pods* followed another. A very rich soil is not wanted for *Beans*, as they produce there too much haulm.

CARROTS.—These may be sown at the time when the ground is in the best order. If the season should be exceedingly dry it is better not to delay too long; but, if wet and cold, the middle of April will, in general, be soon enough.

BEET AND OTHER ROOT CROPS may all be sown towards the end of April, as there is a danger of their

running to seed if sown sooner, and there is no particular advantage at having Beet very large. Good colour, and the absence of coarse, stringy matter being of more consequence. *White Beet* and *Chicory* may also be sown at the same time, the last-named being a useful salading plant.

SUNDRY MATTERS.—Under this head may be included all cleaning up, digging and regulating the various beds of *Herbs* and *Globe Artichokes*, planting out of *Winter Onions* into other beds where they are wanted, and, in fact, all work not specified as above, which a cursory examination will at once tell requires doing. Of course, all crops of *Greens*, be they Cabbage, Curled Greens, Savoy, or Brussels Sprouts, must be removed the moment they are no longer wanted, and the ground well manured and dug to receive another crop; and, as there will be a greater breadth of apparently naked ground at this season than at any other, let it all appear in a neat, workman-like condition, and with a duly balanced proportion of every crop in their proper place and condition.

J. ROBSON.

ODONTOGLOSSUM INSLEYI var. B. MACRANTHUM.

(INSLEY'S LARGE-FLOWERED ODONTOGLOT.)

THIS Orchid has been called *Odontoglossum Lawrenceanum*, but Dr. Lindley is positive that it is only a large-flowered variety of *O. Insleyi*. He says, "that though less rich in colour than the species to which it belongs, yet its size is very striking. A specimen from Sir Philip Egerton



measured two-and-a-half inches across the sepals from tip to tip; and another, from which the above drawing was made, was even larger. The ground colour is the pale, peculiar yellow colour of *Odontoglossum grande*, clouded, especially on the sepals, with broken bands of dull, brownish purple. The lip is darker at the base, lighter at the end, with a bright yellow crest, and deep purple wings to the column."—*Horticultural Society's Journal*.

PARSONIA HETEROPHYLLA.

(VARIOUS-LEAVED PARSONIA.)

THE genus *Parsonia* has been separated from *Echites*, to which it is closely allied. It is one of the Natural Order of *Dogbanes* (Apocynaceæ); and of *Pentandria Monogynia* in the Linnæan System. It was named after Dr. James Parson, a Scotch physician, a microscopical observer of seeds, and



author of a dissertation on the analogy between the propagation of animals and of vegetables.

The species here delineated was raised in 1847 from New Zealand seeds, presented to the Horticultural Society by J. R. Gowen, Esq.

"It is a twining evergreen greenhouse plant, flowering abundantly in May and June. Stem covered with fine down, pale yellow; leaves leathery, dull green, slightly downy, wavy, very variable in form; linear, lanceolate, ovate-lanceolate, obovate, or even spatulate, often repand, varying in length from two to three or four inches. These singular diversities in the form of the leaves do not seem to be confined to any particular parts of the plant, but appear on any of the branches, and all intermingled; the short spatulate leaves are, however, most usual on short lateral shoots. Flowers pale cream-colour, in close one-sided naked panicles, rather sweet-scented. Calyx three times as short as the corolla. Corolla urceolate, with a revolute five-cleft border, not more than a quarter as long as the tube. Anthers without any tails, but simply sagittate.

"According to Cunningham, this plant is common in the northern islands of New Zealand, at Hokianga and Wai-garoa, in shady woods. M. Raoul, whose *P. albiflora* can scarcely be different, found it on the out-skirts of woods at Akaroa. It is rather a nice addition to our greenhouse climbers, and will probably prove hardy in the south of England. For purposes of cultivation it is much superior to *P. variabilis*."—*Horticultural Society's Journal*.

ALLOTMENT FARMING.—APRIL.

THE weather of last month was so favourable for gardening operations, that we trust the instructions recommended in preceding calendars have been carried into effect, which will very much abridge the labour of the present month; but where any unavoidable circumstances have prevented the operations of seed sowing, or transplanting of kitchen-garden crops, no time should be lost in bringing up all arrears. The remainder of all autumn-sown Cabbages and

Califlowers, either under glass, or from sheltered situations where they have been wintered, should be planted out. *Cabbages*, *Walcheren Brocoli*, *Califlowers*, *Spinach*, *Borecole*, *Turnips*, *Beet*, *Lettuce*, *Celery*, *Parsley*, and *Brussels Sprouts*, should now be sown, and all plants in seed-beds thinned out in time, that they may grow short-legged and robust.

As *Apricots* and other fruit-trees on walls, in some localities, have been seriously injured by the late cold winds and frost, on account of large portions of the alburnum being disorganised, particularly the young trees with vigorous shoots, to counteract the occurrence of disease, it is necessary to shade the trees from the sun's rays, which only a sound state of vegetation can now withstand without injury. Thin screens, as recommended in a preceding calendar, will be indispensable for all fruit-trees against a south wall, until their leaves begin to expand. The borders should be stirred, mulched, and watered, if drought continue, and the like attention will be necessary with all newly-planted trees.

Earthing-up.—After a shower of rain it is a good plan to raise the soil to the stems of *Cabbages*, and other such plants, which will protect them from the sun and wind.

Young *Celery* plants should now be pricked out into a bed six inches deep of good, old, rotten dung, with a portion of any light soil mixed with it, on a hard bottom, whence they can be moved, in proper season, to the trenches, with a mass of fibrous roots. The *Celery* requires at all times an abundance of water.

As ridge *Cucumbers* require more attention in preparation of dung, &c., than formerly, on account of the attacks of insects, and a cankering disease to which they are now more liable, it is necessary to raise young plants in a slight hotbed; when fit, to be potted off singly, and when the plant has made fresh growth, to be stopped at the second joint, when they will be fit to plant out early in May. The ridge, or pit, is generally made four feet wide and from two-and-a-half to three feet deep, by throwing the soil out to the sides and ends, and of any required length, according to the supply wanted; the situation should be some warm corner on the south side of a wall, or hedge. The dung to be frequently turned over and mixed with old leaves, tufts of grass, or any other such litter. When the noxious gases have passed away, and it is in what is termed a sweet state, it is thrown into the ridge, or pit, and well beaten down to make it firm. In a few days, when a gentle heat is felt near the surface, about three inches thick of turfy soil is laid along the centre, and upon that is placed about one foot thick of light, rich soil, into which the plants are turned out of their pots, to be protected by hand-lights, pots, or anything else suitable for the purpose, until they have established themselves in the soil; fresh soil to be added as the roots appear on the sides, until the whole width of the pit, or ridge, is covered; by this means they grow faster than when planted at first in a great body of soil. The after-attention will be a regular supply of air, stopping and training a few bearing shoots, removing all that are weak, or seem crowded, and pegging out the remainder without confusion. *Vegetable Marrow* may be treated in a similar manner. *French Beans*, *Scarlet Runners*, and *Nasturtiums* may be sown about the middle and end of the month.

The medicinal properties of *Chamomile* should recommend it to every cottager; by transplanting it now, an edging of it would produce an abundance of flowers to be gathered and dried in summer.

As we may now expect some fine, warm showers, it is advisable to plant out *Pinks*, *Gloves*, *Carnations*, *Piccoltees*, &c., into beds and borders. On account of the continuance of the late dry weather, it is necessary to examine all fresh-planted shrubs, and if dry, they should be watered, and then mulched with a thin coat of half-rotten leaves, and other such light substance.

Laurel hedges and *Laurel* trees may now be pruned with safety, as they are not liable to be injured by frost after this time.

The *Rockwork* should now be dressed, and planted with rock-plants and with hardy annuals. *Gladiolus cardinalis*, *Ixias*, *Ferraria*, and other such bulbous roots may now be planted, and protected by sticking Fir or *Laurel* branches amongst them.

Young plants of bedding-out stuff, such as *Verbenas*, *Cal-*

ceolarias, *Salvias*, *Lobelias*, *Ageratums*, &c., might be pricked out into beds of rich soil, to be protected by hoops and mats until the middle or latter end of May, when they can be moved with safety, and planted out, taking particular care to retain a ball, or as much soil as possible, around the roots.

The garden should now be gay with the *Polyanthuses*, *Auriculas*, *Double Primroses*, the beautiful little *Omphalodes verna*, *Drabas*, *Wallflowers*, several species of *Arabis* and *Aubretia*. The common garden *Anemone* makes a splendid bed at this season of the year. For a supply, another season, the seed should be sown in a bed of fine, light soil, scattered thinly and covered lightly. The seeds sown will produce flowering plants this time next year.

As *Auriculas* will now be growing fast they will require frequent and gentle waterings. After the very dry weather we have lately had, the surface of all beds containing *Tulips* and other such florists' flowers should be loosened, and the cracks filled up with fresh soil. *Polyanthus* seed may now be sown in boxes, or pans, of light soil, and protected in a cold frame, or in the open ground; they delight in a moist, loamy soil in the shade, with only a little morning sun upon them.

Dahlias should now be introduced to some house, or pit, where there is a little heat to excite them into growth; to be potted off as soon as they are three or four inches long.

As the late cold winds and frosty nights have given a check to the growth of *Auriculas*, it is necessary to give careful waterings, and to protect the thrums of the expanding flower from strong sun-bursts, by a slight shading with calico, or any other thin material. If the slime or nibbling of snails is seen on the plants, it is advisable to place a few tiles in the frame, supported at the corners with small stones, about an inch from the ground, by putting fresh bran under the tiles, and by placing the pots of *Auriculas* or *Polyanthuses* on the tiles, the snails will congregate there, and can easily be destroyed.

As long, straggling plants of *Pinks* are apt to be broken off at the surface during rough weather, they will require to be pegged down with hooked pegs to prevent them from being blown about. A top-dressing of rotten cow-dung passed through a riddle will be found beneficial for *Ranunculuses* now making their appearance above ground, taking care, also, that the soil is well closed round the necks of the rising plants.

Carnations and *Piccoltees* should be stuck as soon as possible, for if delayed until the pots are filled with roots, they will be injured by the insertion of the sticks.

The *Belgian Carrot*, which is the most profitable for feeding purposes, should be sown in the early part of the month. They will do well on sandy soils of all kinds, light loams, light black mould, and on all kinds of land that is of a loose, open nature. As the ground on which Carrots are sown should not be dunged for that crop, they generally succeed best when they follow a crop of *Cabbages*, or other such crops that had been dunged the preceding season.

The *Mangold Wurzel* is an excellent food for sheep or cows, when cut and given with pease-haulm, or clover-hay, or with a small portion of bean or pease-meal sprinkled over the cut roots. If the ground has been ploughed, or digged, as recommended in the autumn, it will have been so acted upon and improved by the winter weather as to be now in a fit state for sowing, after a slight digging to destroy seedling weeds, and to form it into ridges twenty-six inches apart, taking care to break all lumps; the seed to be now sown by hand in a shallow drill, formed on the crown of the ridge with the corner of a hoe, or it may be deposited in holes made with the dibble, about seven or eight inches apart on the crown of the drill; the holes should not be quite an inch in depth, and two or three seeds, or, rather, seed-vessels (for each of the rough bodies called seeds is a seed-vessel, containing two or three seeds) dropped in each hole, or the seeds may be dropped over compost placed in dibble holes.—WILLIAM KEANE.

A SCOTCH GARDENER IN THE CRIMEA.—“When the Allies made a brief expedition to Yalta, in the south of the Crimea, they found some splendid gardens around a seat of Prince Woronzoff. These gardens were the

work of a Scotchman. The history of this personage, as given by a correspondent of the *Banffshire Journal*, is a singular one:—Jamie Sinclair, the garden boy, and a natural genius, played the violin. Lady Cunningham had this boy educated by the family tutor, and sent him to London, where he was well known, in 1836-7-8, for his skill in drawing and coloring. Mr. Knight, of the Exotic Nursery, sent him to the Crimea, to Prince Woronzoff, where he practised for thirteen years, laid out these beautiful gardens, had the care of 1000 acres of vineyards belonging to the Prince, and was well known to the Czar, who often consulted him about improvements, and gave him 'a medal of merit.' He returned to London in 1851, and was just engaged with a London publisher for three years; but, being the only foreigner who was ever allowed to see all that was done in and out of Sebastopol, and over all the Crimea, the Czar took care that Sinclair could not join the Allies. 'Where he is, and what he is about, I must not tell until the war is over, except that he is not in Russia, and that he will never play first fiddle again in Morayshire.'

[We copy the above from the *Banffshire Journal* for two reasons; the first reason is, that the said correspondent might have had the honesty to say he took it from the pages of THE COTTAGE GARDENER, and from an article by Mr. Beaton, on the Climate of the Crimea, eighteen months since; which article has since been verified to the letter by "Our Own Correspondent;" and, secondly, to tell the Banffshire and Morayshire people, and all others whom it may concern—now that Sebastopol is blown up—that the said Mr. James Sinclair is now Editor of a gardening periodical of much note in Melbourne, of gold-digging notoriety, where he seems to "carry the day" in all rural and gardening matters, judging from some of his "leaders" which we have read in the Melbourne papers of last summer.—D. B.]

HOW TO GROW FIGS, &c., IN TURF PITS AND COLD FRAMES.

In glancing over a report of the Pomological Society, at which we exhibited Figs grown as above, I find a desire is expressed that I would communicate the method. Nothing can be simpler. The pit in question was formed of some spare sashes for the protection of "bedding plants," in winter, and I slightly deepened it to make room for the Fig-trees, first putting a drain through the centre, thus—



In such pits I grow early Gooseberries, Plums, &c., &c. The Figs should have a poor soil, about a foot deep; this prevents strong and unfruitful growth. Avoid the strong-growing kinds, as the *Brunswick*. Choose such as *Brown Turkey*, *Ischia*, &c. Methinks, I hear many a cottager say, we have no spare sashes, and turves we cannot get. Well, I will show you a more excellent way. Get a common two-light box, say seven feet by six feet, two-feet-and-a-half at back, one-foot-and-a-half at front. Select a warm and sheltered spot; if not thoroughly dry, make it so, as above. You can deepen the inside to allow of a foot or fifteen inches of soil above the drainage; and select dwarf Figs, dwarf Peach-trees, dwarf Cherries, dwarf Vines; in fact, anything that way to suit your miniature "lean-to house." Your two lights will hold, at least, four plants, and you will do well to devote your little house to one kind of fruit. At the same time, you may have a great many favourite plants in it be-

side your favourite fruits, "with this special observance," that you do not allow the one to touch the other.

It may be observed, here, that your portable "lean-to" can be made to do double service. Thus, suppose you decide on growing Nectarines or Peaches, *you must not cover them* with glass until about the last week in February. The fruit may be ripe at the end of July or beginning of August, and after it is gathered you can take off your frame, and use it for something else until the ensuing February. When you want to increase your heat in the spring or summer, cover the surface in the frame where the sun strikes with charcoal, and when you want to retard the fruit, it is very easy to remove that charcoal, which is your heating apparatus.

I cannot go into the details of the treatment requisite for so many things; but just remember, that plants *live and breathe* as well as you; that they like air every fine day, particularly when the sun shines; that they delight in being kept clean; get cold if exposed to draughts; and that the amount of food or water which is given to fruit-trees, and all plants, should increase with the growth of the plant and the advancing power of the sun, up to the period the fruit changes colour, when it should be gradually withdrawn: and to succeed, you must TRY.—GEO. McEWEN.

PHASEOLUS CARACALLA.—CONSERVATORY CLIMBERS.

I SEE, in answer to a correspondent (page 344) that you state there are two plants known under the name of the above; allow me to say there is a good drawing of the true one in "Edward's Botanical Register," at one time conducted by Dr. Lindley; at least, the same that is known for it in Portugal, where so much of it is grown to cover arbours, trellis walks, &c., where its delightful fragrance, in some measure, makes up for the detestable fumes of tobacco. The late P. C. Labouchere, Esq., father of the Right Honble. Secretary for the Colonies, was a great admirer of it, and brought me a plant and a few seeds to nurse, some twenty-five years ago, in the hopes we should be able to grow it out-of-doors in this country; but though I tried several, I was only able to keep them barely alive when unprotected.

I also tried it in a cold greenhouse, but could not get it to flower, though I was very successful with it in a cool stove conservatory, where it was treated as follows:—

It was planted out, and allowed to run up a pillar some twenty feet in height, and afterwards carried along a horizontal rod, and then allowed to hang down, where it flowered profusely, scenting the whole house. In a situation like this, it is really a great acquisition, as its flowers, ram-horn fashion, are both singular and beautiful. It is necessary, when cut back in winter, to dress the stems and spurs with a mixture of clay, sulphur, cow's manure, soot, and lime, as the Red Spider, the gardener's pest, enjoys it amazingly.

Though now nearly twenty years since I have had the care of them, I have not forgotten a few of its neighbours which luxuriated along with it, under similar treatment, and which I seldom see in these times. Of these, *Solanum Seaforthianum*, the favourite creeper of my late respected friend, Mr. Monro, late of the Horticultural Society's Gardens, is well worth a place in such a situation, being, in my opinion, the most beautiful and delicate grower of all the Solanums. *Bignonia gracilis*, the freest flowerer and delicate grower of all the tribe. *Bignonia Cherii*, *venusta*, and *grandiflora*; *Combretum grandiflora*, *Pussiflora picturata*, very delicate and beautiful, as are *Rubra*, *Loudonii*, *Princeps*, *Elata grandiflora*, and *Quadrangularis*; *Convolvulus pententhus*, decidedly the prettiest of its class, when grown in this way, where it has room, is superb. I remember when this plant was at one time in perfection, the present Duchess of Leinster, with the Duchess and Duke of Bedford, called, and were, as they ought to have been, highly delighted with it. I was requested, afterwards, to send them a plant, which I promised; but, alas! for the security of the lives of plants depending on us mortals, my plant withered and died in a day, and it was not till years afterwards, when I called on my old friend, Mr. Fish, then at Tattersall's, that I again met with it. The above are nothing in pots to what they are when planted out. The

Crystal Palace Company will beat us all in this way; as room, room, they must have, to show their graceful and admirable habits.—D. FERGUSON, *Stowe, Buckingham.*

HEATING BOILERS WITH GAS.

As this subject is at present under discussion in your pages, and I have had a gas boiler and range of pipes so heated, I venture to make a remark or two thereon. I am satisfied that it can be done with facility, cleanliness, and less labour than other modes, but with respect to economy, I think some allowance must be made for the luxury and advantages named before the balance of cost is made out. Moreover, the gas-burners used will materially affect the consumption, and to that I wish to call attention, with a view to obtain information myself. I have tried large jets, and also a circular pipe with small jets, but still with the same result,—a production of a thick coating of soot or lamp-black on that part of the upper boiler exposed to the flame, which, of course, destroys the heating power. I am about to try a guaze wire-frame, the size of the bottom of the boiler. Have any of your readers tried one, and with what result, whether it is likely to consume more gas?—W. X. W.

P.S.—I notice a writer in a recent number speaks highly in favour of pot-tile flues. They soon warm a house, but as rapidly lose their heat, and are, therefore, less valuable than bricks, the retentive powers of which are well known.

DIOSCOREA BATTATAS, OR CHINESE YAM.

CHANCE has thrown in my way the method of cultivating this plant in America, which tends to throw much light on its usefulness as a culinary vegetable, and its superiority (?) over the various sorts of Potatoes now in use; and deeming it probable that your numerous readers would be gratified by perusal of the same, I give it to you as given to me.

“The Chinese Yam,” or ‘Japonica Potato’ (*Japonica Battatas*), bids fair to supersede the common Potato as a table vegetable. It has, for a great number of years, formed the chief food of the Chinese and Japanese, and must, therefore, be worthy of some consideration.

“It has been but lately introduced into Europe, and still more recently into America, but wherever its propagation has been tried, the result has been most successful.

“They resemble somewhat the ‘Sweet Potato,’ but are much longer, growing often from twenty to thirty-six inches in length. They grow perpendicularly in the ground, are largest at the bottom, about two inches in diameter, and taper towards the top of the root to one-half-inch in diameter. They weigh from a half to three and five pounds. The skin is a kind of fawn colour, rather more brown than the Sweet Potato. The vines, like the Sweet Potato, spread over the ground for several yards. The flesh is white, has an exceedingly pleasant flavour, and, moreover, is so dry and mealy, that it can be converted into flour, and baked into bread, in appearance almost as white as wheat bread. Roots have been produced weighing from two to two-and-a-half-pounds, from tubers planted in April, and dug in October of the same year.

“One great point of superiority possessed by it is, that it may remain in the ground two or three years, always enlarging in size, and equally nutritious and excellent in flavour. Experiments have proved that when the roots are left for eighteen months in the ground the yield is more than treble that of the roots left but for one summer; and it is also considered that the roots are improved in quality.

“It possesses another great advantage; the roots, when left in a cellar, remain firm and perfect, as well as free from sprouts, and they can be kept out of the ground a year without injury or deterioration of their alimentary qualities. This property renders them invaluable for use in long sea voyages, and especially as a preventive of scurvy.

“All things considered, this Yam promises to be a most valuable acquisition to our garden vegetables. The mode of culture is easy. Any one who understands growing the Sweet Potato can grow the Yam; its culture is about the

same. After the ground is well prepared, and tubers planted, keeping the weeds down is about all that is required. ‘Earthing up,’ as we do with the common Potato, is quite unnecessary.”—W. H. WARNER, *Melrose.*

HOW TO GET ON AS A GARDENER.

I FIND, from the pages of THE COTTAGE GARDENER, that you invite us youngsters to give you our thoughts, words, and deeds occasionally, and as it will be a means of self-culture, if of no other advantage, I beg to make a feeble attempt; and my object in doing so, is to tender my grateful acknowledgment of advantage I have derived from the perusal of THE COTTAGE GARDENER. Also, to add my humble opinion of that valuable work, THE COTTAGE GARDENERS’ DICTIONARY, particularly to one in my position, though, no doubt, many first-rate gardeners find it of much assistance to them.

Perhaps I had better begin at the beginning, and tell you that I have kept daily memorandums of the *daily* occurrences, and for particulars to them I often refer. And I will just remark here, that I was hoping Mr. Appleby would have urged it on the notice of his young friends, *i.e.*, the young gardeners. I do not lay claim to that title, for I am one of those nondescripts, called “*generally useful*,” with the care of cows, pigs, and sheep on my hands.

Now, Sir, this is what I want to tell you. Doctor ——— is in want of a man, or a boy, or a something between the two. I apply, and got the situation. Having a pretty good knowledge of handling tools generally, having been accustomed to agricultural work, I could dig, plant vegetables in a kitchen-garden, as well as most youths in my position; but then, there is a large piece of lawn to mow, and in mowing I had had but little practice; but “never mind that,” the Doctor says—“I know you can manage that, *if you try*, and feel a wish to do it.” There is a good deal of flower-garden, too, and that I know nothing about, but the Doctor is not so particular as some about new sorts, or very choice kinds, or scientific arrangements, or things at unseasonable times. Still, he likes to see a good bloom and showy colours. As to Roses, he says—“You may put Roses anywhere and everywhere.” “Very good, Sir,” says I, “I’ll do my best.” But then, where am I to get Roses from? I never budded a Rose; and as to raising them from cuttings, I had never heard of it. But as there are several gentlemen in our village with gardens similar to our own, and with gardeners to manage them, I naturally thought I could get any little piece of advice I wanted from them; but I was doomed to disappointment, and I am glad I was, for I should have had to unlearn most of it again, and it made me seek that needful advice in a far surer channel. I had a pretty good stock of books by me, but they did not treat much of gardening, or, at least, in a way that was not suitable to my wants, with the exception of “Mawe’s Gardening,” and that I consider a very useful book to one in my position, but I wanted to know what gardeners were saying and doing at the present day. So I called on a neighbouring bookseller, and frankly made known my wants, and he handed me a number of THE COTTAGE GARDENER. “That’s what you want,” he says. Well, Sir, I read it all through, and I thought the bookseller was about right. The vegetable part of it I could understand very well, but the flowers, with their English and Latin names, almost made me despair; but having put my hand to the plough, difficulties must be overcome, so I read again, and mentally say—Now here’s a list of Annuals, Perennials, and Biennials, bulbous, tuberous, and fibrous. And, no doubt, these very flowers that I am so anxious to become better acquainted with are in these very borders. Now, what shall I do? why, I’ll just take a run over to a neighbour’s. I do so; there I see the same kinds, and I ask their names. Well, he tells me something neither English nor Latin, and laughs at my simplicity. Now, I thought, if I wished to mount this “ladder of learning,” I must put my foot on the first round at once; I must have some tallies (and I must not ask for anything that will be any expense until I am in a position to show the necessity and utility of it). I can make some with a little trouble out of the old thatching spikes, just paint the tops with white lead, and keep a black lead in my pocket, and the tallies

close at hand, and every flower or shrub I learn the name of, down with it, or something near it, on a stick, and then peg it down, look over my numbers at night, and if I see the name, rectify it at once, if not, enter it in a little book to keep in my pocket till I do see it.

Now, the Doctor's lady has been very kind to me in this way, but I do not like to be too troublesome; besides, I must turn my attention to arranging the beds and vegetables in the kitchen-garden, for it appears to me as though they had been thrown in their respective places from the other side of the garden-wall. During these short days and long evenings I made the most of my reading, and making notes of work to be done, and a list of seeds for the spring, *i.e.*, Annuals to fill up the spaces between Perennials, as nearly all the borders are of the mixed character; and now I had made up my mind to take the shine out of my neighbours in flowers, for I must beg to inform you that they are just the same now as they were ten years ago. They do not want any new-fangled notions, "there's nothing beats the old ones." On some points I agree with them, and stick close to Abercrombie; still, I will not despise a plan because it is new, or because a man tells me he has tried it, and it has failed, unless I knew that man gave it a fair chance. Neither will I cast aside the plans and practices of ages gone by, until I can see better; but unless we search, and try, and prove, how are we to know? But my neighbours are not reading men, and, no doubt, from my doing so, with my inexperience, my juvenile appearance, and diminutive stature, I am known in the village as—THE DOCTOR'S BOY.

P.S.—To be continued, if you think it is not a waste of time and paper.

(To be continued, then; for we think it a beneficial use of both.—ED. C. G.)

QUERIES AND ANSWERS.

GARDENING.

MYOSOTIS AZORICUS FOR BEDDING.

"Can you give me any information about the *Myosotis Azoricus*, whether it is fit for a mass; and how far apart strong plants of last year ought to be planted?—E. H. C."

[The Azorean Forget-me-not is a most treacherous plant. Do not risk it in "a mass" unless you have proved it will succeed on that very soil. It is a most beautiful plant, for all that, with purplish-blue flowers, and will mass, in some rare instances, most beautifully; but in nine places out of ten it will not bear even exposure to the open air. Why go to the Azores for "keepsakes" of this kind, when our own "Forget-me-not"—the biennial called *Myosotis sylvaticus*—is the best of them all, and the best spring flower we have? It is not, however, the one which grows in the ditches. If *Myosotis sylvaticus* was from the Falkland Islands everybody would have it as a pet plant.]

LIST OF PELARGONIUMS.—RAISING VERBENAS FROM SEED.

"Which are the best of the following list of Pelargoniums, quality of more consideration than quantity, and only those of a strong growth and good habit wanted? As I have a duplicate list, if you mention the numbers it will be enough. They are the remnant of a list from which I have selected most of the best.

- | | |
|------------------------------|--------------------|
| 1. Albira (Hoyle) | 15. Mary (H) |
| 2. Alboni (Ayres) | 16. National (F) |
| 3. Amazon (H) | 17. Neatness (B) |
| 4. Astrea (H) | 18. Novelty (T) |
| 5. Attraction (F) | 19. Oscar (H) |
| 6. Claudiana (B) | 20. Pieta (H) |
| 7. Duchess of Wellington (T) | 21. Pretty (H) |
| 8. Eleanor (F) | 22. Rachel (F) |
| 9. Empress (T) | 23. Rebecca (B) |
| 10. Eurydice (F) | 24. Regalis (H) |
| 11. Gertrude (B) | 25. Remus (H) |
| 12. Lagonia (H) | 26. Rosa (F) |
| 13. Leah (B) | 27. Sanspareil (H) |
| 14. Leonora (H) | 28. Spot (B) |
| | 29. Virginia (H) |

"Is there any particular care required to raise *Verbena* seedlings? I sowed a large packet of my own saving last year, but failed to raise a single plant; and I expect the same luck this year, both with my show kinds and with *V. venosa* (of which I have some seed), unless you give me a few of your valuable hints on the subject.—J. R."

[In your list of Pelargoniums, Nos. 2, 4, 5, 8, 9, 12, 14, 16, 19, 23, 26, 27, and 29, are good varieties; but 1, 3, 6, 7, 10, 11, 13, 15, 17, 18, 20, 21, 22, 24, 25, and 28, are not so good: 24 is a fine colour, but not a free bloomer. With extra good management, such as the exhibitors at Regent's Park practise, this variety has been very fine; so you may try your skill upon it.

There is no difficulty in raising *Verbenas* from seed. In your case, it is doubtful whether your seed has been ripe; or, perhaps, you have placed your seed-pans in too great a heat. We have had them come up very freely in the open air self-sown, that is, on the bed where they had grown the previous year. One successful raiser of new varieties always allows his seedlings to come up self-sown. If you have saved any seed this last year, sow it in wide pans, a month hence, and place them in a cold frame, giving air and shade when the sun shines on the glass. Do not cover the seed more than a quarter-of-an-inch, and keep it just moist. You might also try a part of your seed in the open air, using the same precaution of not covering it too deep, and keeping the surface moist. We should be glad to hear of your success.]

EXCRESCENCES ON CRATEGUSES.

"I should be glad to know what insect causes this blight on the Thorns, and if any means can be used to destroy it. A double Pink Thorn in my garden is almost killed by it, as the end of the branch generally withers. I have observed it the last two years, but only on *Thorus*.—GODDESS."

[The gall-like excrescences upon these twigs are new to me. They do not appear to be true galls, as I find no cells or other traces of insects within them. They may be the result of punctures of Aphides, or some other species; or they may be an abnormal growth, owing to some disease of the vegetable tissue. If I could see specimens in a fresher state I might be able to give a more decided opinion as to the origin and mode of checking the evil.—I. O. W.]

TO CORRESPONDENTS.

** We request that no one will write to the departmental writers of THE COTTAGE GARDENER. It gives them unjustifiable trouble and expense. All communications should be addressed, "To the Editor of Cottage Gardener, 20, Paternoster Row, London."

HERRACEOUS PLANTS (*An Old Subscriber*).—We know of no good work giving their description and culture. You will find much about them in our back volumes.

BUTTER-MAKING.—B. wishes for instruction in the art of making good butter, and inquires if there is anything peculiar in the manner of making it in Buckinghamshire? We shall be much obliged by answers to these queries.

COVERS FOR OUR VOLUMES (*W. H. Warner*).—They are one shilling each; but will not travel under the book regulations by post. Send your full direction, and the number of the volume you require, to the office.

NAME OF ORCHID (*S. J. Seedy*).—Your pretty Orchid is *Oncidium pubes*, a native of Brazil, and grows best on a block placed in a pot amongst broken crocks. Your figure of the plant is good, but the specimen was sadly crushed. You ought to have packed it in wool, or moss, in a small, flat tin-box, in order that it might travel through the post-office without being pressed flat in stamping the letter.

ABRONIA UMBELLATA SOWING (*Amicus*).—Your No. 4. *Cineraria* seedling, white, with broad purple edge and purple centre, is the only flower that is even moderately good, and in that the petals are too wide apart. The specimen is defective, and the flower may be better next year. Sow the seed of *Abronia umbellata* in the husk.

BOOK ON ROCKWORK, &c. (*W. Thomas*).—There is no such work as you ask for. It is too much dependant upon taste and circumstances to admit of minute directions.

NAMES OF FERNS (*M. H. Lacy*).—Your Fern is *Asplenium trichomanes*. (*Ignoramus*).—1. *Scelopendrium officinarum*. 2. *Polypodium vulgare*. 3. *Asplenium trichomanes*.

THE POULTRY CHRONICLE.

POULTRY SHOWS.

AGRICULTURAL SOCIETY (ROYAL). At Chelmsford, July 14th to 19th.
Sec. J. Hudson, Esq., 12, Hanover Square, London. Entries close June 1st.

ANERLEY. July 29th, 30th, 31st, and Aug. 1st.

BRISTOL. June 25th and 26th. Sec. Robert Hillhouse Bush, Litfield House, Clifton, Bristol. Entries close 26th of May.

ESSEX. At Colchester, 8th, 9th, and 10th of January, 1857. Secs. G. E. Attwood, and W. A. Warwick.

EXETER. At Exeter, May 29th and 30th. Sec. Mr. T. William Gray.

NEWCASTLE, NORTHUMBERLAND, AND DURHAM. At Newcastle, March 26th and 27th. Sec. Mr. W. Trotter, South Accomb, near Newcastle.

NORWICH. June 20th. (Norfolk Agricultural, for Subscribers only.)
Sec. Mr. E. C. Bailey, Little Oxford Street, Norwich. Entries close May 31st.

NOTTINGHAMSHIRE. At Southwell, December 17th and 18th, 1856.
Sec. Richard Hawksley, jun. Entries close November 19th.

PARIS. May 23rd to June 7th. Sec. M. M. E. Rouber, Division de l'Agriculture, rue de Varennes, No. 78 bis, Paris.

WHARFDALE. April 18th, at Otley. Sec. Mr. T. Metcalfe, Otley.

WINDSOR POULTRY EXHIBITION. At Windsor, 4th, 5th, and 6th of June. Secs. Thos. Chamberlain, and Henry Thompson. Entries will close May 10th.

N.B.—Secretaries will oblige us by sending early copies of their lists.

COTTAGERS' PRIZES AT POULTRY SHOWS.

I CONFESS I have read with considerable interest the shrewd and cleverly-written arguments that have lately appeared in your paper on the subject of Cottagers' Prizes at Poultry Exhibitions.

Nothing could by possibility be more diverse than the opinions entertained, nor do I know any one subject whatever that affords so ample latitude to controversialists for justifying their own individual views, however much opposed to each other they may happen to be. For this reason, then, I would not have dared to intrude my own experience as to this particular matter, had I not felt satisfied that each party hitherto takes cognizance rather of isolated cases, and thus scarcely gives sufficient heed to *both* sides of this really important and most interesting question. I have myself, from time to time, given much effort to promote the universal adoption of premiums to Cottagers at our Poultry Shows, whether by advice privately tendered to Committees, contributions to the public press, or regularly allotted prizes from my own private purse; and certainly the issues, as a whole, have been so perfectly unqualified and widely conflicting, that possibly my wisest plan is to very succinctly lay the result before your numerous readers, totally disclaiming, however, any egotistic desire of self-praise, and assuring them my sole motive is the elucidation of truthful facts, combined with the earnest hope, that by the *united* efforts of all interested, we may still afford such inducements to humble personal exertion as shall ensure emulation, and not less so the *right* class of exhibitors being found in the *right* places.

For reasons that will at once be obvious to every one who may peruse this brief recital, I will merely say, it is impossible to individualize the two parties alluded to. Indeed, the more humbly situated one has already passed from this transitory scene, and is, therefore, placed beyond my well-merited eulogy, to appear before that tribunal where the self-donating honour he displayed, under *very* close privations, will undoubtedly meet with its due reward, and shine forth in bright and unfading contrast, compared with the conduct of the affluent individual to whom I must eventually refer. To those readers who feel an interest in these "particulars," I direct attention to the pleasing incident connected with "poor, but honest Mike," as it truthfully appears in the sixth number of the original POULTRY CHRONICLE. To all parties who at the time witnessed the circumstance, it proved most deeply affecting, and needs not here any recapitulation; but I will simply add, whilst "Mike" was busily engaged in his humble occupation of bricklayer, the falling of a ladder caused his death in only a few hours, though, up to that period, possessing a most robust and vigorous constitution. Let any of your readers now consider for themselves the remaining case of most wilful perversion

from its *intended* purposes of a Cottager's prize, that I myself offered a few years back, and which presents so striking a contrast to the one just referred to. The amount, though not by any means considerable, proved quite too great a temptation for the successful competitor's unbounded cupidity to withstand. It so happened, I was appointed one of the two officials to award the premium, and my colleague, like myself, felt quite astonished at the unusual superiority and *intrinsic* value of one particular pen of fowls in the "Cottagers' class."

The success of this pen was certain: no doubt whatever could possibly arise as to their all but absolute perfection, and they were entered as "not for sale." The prize being at once allotted, both judges felt much expectation to meet their owner, being convinced, that in those palmy days of "poultry excitement," by a little advice, the owner's pecuniary position would be much improved by careful management of the birds in question; for they could have been very repeatedly sold, at a high figure, to different parties who visited the Exhibition.

At the time this class of fowls were pointed out, both Judges asked simultaneously, "Are *these* your Cottagers' Poultry?"

After all our duties were complete, from a hint dropped by an *unsuccessful* opponent, curiosity impelled us to take rather a lengthy walk, the same evening, into this "cottager's" locality, as he had not, at that time, visited the Exhibition. His house was undoubtedly "a cottage," but evidently, so far as appearances were concerned, bespoke rather the suburban villa of a well-to-do man. A pony-gig stood (unused) by the side of the house; a King Charles's spaniel was sunning itself in the window; whilst a couple of respectably-attired children were, at the moment, toying with an aged pointer on the grass-plot!!! All these met our view *outside* the domicile; and both of us at once returned, thoroughly disgusted at this downright practical imposition on the funds, and, of course, without seeing any thing whatever of the interior. It afforded much matter for reflection and conversation as we returned; for it proved evident we had both, naturally enough, foreshadowed the thatch-worn eot, combined with the really restricted means of the farm-labourer, as the objects usually considered identical with the position of a true cottager; indeed, we had just seen directly the reverse of what we had anticipated. It was impossible to reconcile our preconceived notions of a cottager, as being "*an out-of-door working man, or agricultural servant*," with a person actually unconnected alike with either business or profession, and evidently but little limited in ways and means. Our minds were speedily "made up;" and, despite the award having openly gone forth to the world, we determined the (sovereign) prize should be the reward of some more deserving object, and therefore reversed the decision; nor, I confess, have I ever since felt a single momentary regret at so doing. "News" of any kind connected with a Poultry Show always travels quickly; and the winner of the previous day, hearing what had transpired, now made his appearance, excessively wrathful at "the injustice done him!" Supported by the Committee, little was said, as an uproar must have proved injurious to the Exhibition; and the amount was duly paid over, regardless of his threats, to a deserving man, obtaining fourteen shillings per week only, out of which limited pay five little motherless children were to be provided for, though I believe some *little* extra pay was received from a local charitable institution. I have no doubt, with your correspondent, Mr. Matthew Ridgway, of Dewsbury, that many most meritorious humble individuals are as genuine lovers of poultry, and, with their limited means, have achieved even more noble and hardly-won triumphs than the wealthy amateur; whilst the very difficulties they had surmounted infinitely enhanced the credit of their success. It would, indeed, be "ignoble" to endeavour to tarnish their reputation. But, on the other hand, of the conduct in this matter of the party to whom I have more particularly alluded, I will add nothing; for any thing I could urge would only render him less contemptible.

The position in which we stand, as to Cottagers' Prizes, is without any difficulty explained. Whoever may be the donor, the acting Committees are the *only* parties who can *positively* determine what individuals in *their* particular locality ought to be allowed to compete; the onus must lie *exclusively* on

their shoulders. This will at once settle the disputed question of "who are to be considered cottagers."

As regards lending fowls to *undeservedly* secure prizes for "*favourites*," no really respectable man will attempt it; for I quite agree with you, "that of *all* villany, the greatest is that which designedly injures the poor." But surely, Mr. Editor, with a little care and management, we can arrange a more successful result, and, by a combined effort, insure success *exclusively* to the really deserving. The attempt is worth the trial.—EDWARD HEWITT, *Spark Brook, Birmingham.*

REARING CANARIES.

HAVING seen a letter, signed "ARGUS," in THE COTTAGE GARDENER of the 4th of March, in which your correspondent complains of his misfortunes in rearing Canaries last season, I beg leave to offer a few remarks for his information.

The cause of the death of the young birds was, probably, their having food too nutritious and stimulating; in fact, as much so as that given to old birds when put up for breeding. Hemp-seed, maw-seed, and yolk of egg, are astringent, and bread-crumbs swell when moistened in the crop.

A sketch of my own practice may be useful; but nothing teaches like observation and experience.

When I put up a pair of birds, I give them, daily, about a quarter of the yolk of an egg, boiled ten minutes, with about an equal quantity of bread, well soaked in cold water, and squeezed so dry, that when chopped up with the egg the mixture will not be sticky, although moist. To this I add, occasionally, hemp-seed and maw-seed; giving them rape and canary seeds as usual, and plenty of green food. I remove the eggs, and substitute two ivory ones until all are laid. This appears to be the safest plan. When the young are hatched, it is sometimes necessary to feed them with bread and egg the first day. I leave them with their parents as long as they will feed them. When the old ones begin to peck them, I put the young ones into the small part of a common breeding cage, and supply them with the egg and bread prepared as above; sometimes adding a little scalded and bruised rape-seed, and, when they are about twenty-four days old, a little bruised canary-seed, in a separate vessel.

When the old birds are good and steady, the young seldom require to be separated before the seventeenth day. As soon as the young ones leave the nest, I entice them to feed themselves by offering them some bread and egg on a quill, which they readily take, and soon begin to feed. I have found the above method very successful.

I presume, I need scarcely add that the food and water should be fresh, and the vessels well cleansed, every day, as the sour or stale food would certainly kill the young birds.—X. C.

CAUTION TO POULTRY PURCHASERS.

MR. BOOTHBY, of Louth, has, very properly, made public his transaction with a Mr. Farrant; and your recommendation to give that gentleman an introduction to a County Court is equally laudable; but, unfortunately, such a step is attended with some expense, the more considerable if the purchaser, as in the majority of cases, lives at a distance from his victimizer. A good deal has been said about a set of scoundrels who have obtained valuable birds from various unlucky parties without payment. I think it is equally necessary to put your readers on their guard against parties who are equally expert in obtaining money upon deposit from intended purchasers without sending birds to them. I had an offer, lately, of this nature, and sent a half bank note as security; it was returned, with a modest request for a post-office order, which I sent; but neither birds, nor a return of the money, could I get, nor even a reply to my repeated application, and it was only by the kind attentions of a friend who chanced to live near the worthy, whose name I send you, that he was induced to send a bird at all, which, I need hardly say, was not very valuable. Indeed, I think I may consider my whole outlay was expended on "experience." I think it would be well if your victimized readers would put you in possession of the names of all the sharp

practitioners. Such a list would be a valuable reference in all doubtful cases.—W. X. W.

[Our correspondent has furnished us with the name of the party who thus served him. He resides at Birmingham, and if we have certain information of his repeating such a mode of doing business we will publish his name and direction.]

THE ANERLEY POULTRY SHOW.

THE schedule of the forthcoming Anerley Show is distinguished by so great an amount of liberality, that there can be no doubt of a most successful exhibition of the highest character. Nine silver cups, value ten guineas each; two silver cups, value five guineas each; first prizes of four and three pounds each; and bronze medals instead of high commendations, form, altogether, an attraction not easily resisted by exhibitors.

The first five classes are devoted to Gold and Silver Sebright, Black, White, and any other variety of *Bantams*; a first, second, and third prize of £3, £1 10s., and 15s. being given in each class.

The next eight classes are for the *Hamburghs*; the prizes for the old birds equalling those allotted to the *Bantams*; and for the chickens there are first, second, and third prizes of £2, £1, and 10s. respectively.

Black, Golden-spangled, and Silver-spangled *Polands* form the next six classes: three for old birds, and three for chickens; the prizes being equal in value to those for *Hamburghs*.

Spanish were always favourites with the Metropolitan breeders, and as there are but two classes, viz., old birds and chickens, a due liberality is shown in awarding four prizes in each of £4, £3, £2, and £1.

The *Game* birds are arranged in three groups: Black and Black-breasted forming the first; then come White and Piles; and lastly, Duckwings, Greys, and Blues. In each division there is a class for old and one for young birds, with the same prizes as for *Hamburghs* and *Polands*.

Next come the *Cochins*: Cinnamon and Buff, Grouse and Partridge, and White, mature and young birds in each.

Of the so-called *Brahmas* there are four classes: two of Pencilled, and two of Light birds.

Dorkings are honoured by two classes, not usually found at our shows; there being two for Coloured *Dorkings*, two for White, and two for Speckled (Blue or Cuckoo).

In all the above, a cock and two hens, or a cockerel and two pullets, must be shown.

For any other variety of fowls a number of first and second prizes will be given according to the merits of the class.

Turkeys (a cock and hen) have three prizes. *Geese* (gander and goose) also three. And now that a pair of *Geese* frequently approach half-a-hundred-weight, it is most desirable that the tax of railway carriage should be, as far as possible, spared the exhibitor; hence, we regard the number shown as a considerable improvement on the old plan of having three birds in each pen. *Aylesbury, Rouen, and other varieties of Ducks* complete the poultry list.

Nine silver cups will be given to the best pens of *Bantams*, Pencilled and Spangled *Hamburghs*, *Polands*, *Spanish*, *Game*, *Cochins*, *Brahmas*, and *Dorkings*.

The *Pigeons* are most liberally dealt with; twenty-two classes receive prizes of from £2 downwards, there being three prizes in each class; and in order to prevent all disputes between high and low class breeders, two cups are given. One to the three best pens of *Carriers*, *Tumblers*, and *Pouters*; the second to the four best pens of other varieties.

Every effort appears to be made to meet the wishes of exhibitors. Thus, notice is immediately to be given to the late owners of the sold birds. The cock and hen in each pen may be sold separately. Catalogues and prize lists will be forwarded to exhibitors, &c. The date of the show has been altered from that originally advertised, as a change was necessary, from the Royal Agricultural Meeting having been previously fixed for the same week. The last three days in July and the 1st of August is the period now finally determined upon.

One regulation we may notice, as it may save some persons the annoyance of apparent neglect, viz., applications for schedules must contain a pre-paid envelope.

POULTRY SALES.

THE attendance at Mr. Stevens's last sale, on March 18th, was numerous, but there were not the usual number of good birds; however, those that were there realised very fair prices. The Rev. Mr. Gandy sent the best collection; amongst them was a pen of Rouen Ducks, which sold for £2 6s., and a pen of Silver Polands £1 12s. In another lot, a very good Cochin cock sold for £1 2s., and some good Spanish fetched high prices. Two hen-feathered Silver-spangled Hamburgs went at a merely nominal price, a proof that the henny birds are not held in much estimation. A few old-fashioned speckled Dorking hens, from a well-known Suffolk breeder, fetched small sums, though extraordinary good birds; whereas, others, not much more than half the weight, but of the more fashionable colour, sold better. There were some good Carriers, many of which produced about £1 each. A few copies of Burnham's "History of the Hen Fever, and exposure of the Brahma manufacture," sold for 2s. 6d. and 3s. each.

OUR LETTER BOX.

NOMENCLATURE OF HAMBURGHs.—BREEDING PILE GAME FOWLS.—"I am sorry to see the much-voiced question as to the name of Hamburg fowls still. For my own part, I cannot see the necessity for any alteration in the name, and especially as they are most generally known by that name. If we are wrong in calling the fowl 'Hamburg' let us remain wrong; for I am sure altering the name would only create great confusion. Your correspondent, 'TRISTRAM SHANDY,' is a great reformer; but I, for one, hope his reformation will not extend to names. As to the hen-tail cocks, surely the testimony of many of our greatest breeders, that they are worthless as stock birds, is sufficient. Your correspondent declares, that Hamburgs with long hackles and flowing tails are crossed with the Game cock; it seems to me much more probable that 'TRISTRAM's' hen-tails are crossed with the Sebright Bantam. If they are perfect Hamburgs, how is it that Judges invariably pass them by at our exhibitions without notice? Can you, or any of your numerous correspondents, tell me how the *Pile Game* fowl was originally produced? Whether from a Black-breasted Red, Duckwing, or Red-dun cock and White hen? I should feel much obliged if any of your correspondents have tried any of these crosses if they will give me the result.—W. C."

BUDGERIGARS, BIRDS FROM AUSTRALIA.—"Can Mr. Brent give me information about the feeding and habits of the Budgerigars? Whether they breed in confinement similar to the Canary, or require more space?—A Subscriber from the Commencement."

[Of the Budgerigars, or small Australian Parrots, I am not able to give any practical information. A gentleman collector, who brought some over from Australia, informed me they made holes in the decayed trunks of trees to breed in, using only a few chips of decayed wood to deposit their eggs on. He seemed very sanguine respecting their breeding in confinement, and showed me the cage he had made for them. It was of mahogany, of solid construction, and boarded all round, except the front. It was fitted with long nest-boxes that drew out from behind the cage, like a drawer, having only one round hole for an entrance for the birds; and he placed sawdust in these boxes by way of nests. I cannot remember anything else respecting them.—R. P. B.]

WHITE COMB.—"I have a Cochin cock which has a greater part of his comb covered with white, which looks like mildew or scurf. What can I do for it? The bird appears quite well.—Q."

[This disease is what is called "the White Comb." If not attended to it spreads down the neck, causes the feathers to come off, and becomes leprous. The cure is to rub the comb every second day, until cured, with the following ointment:—One ounce of *cocoa-nut* oil and a quarter-of-an-ounce of *turmeric*, in powder. No other oil than that of the *cocoa-nut* will do. Melt the oil (for it is solid, like spermaceti), and, whilst liquid, add the turmeric, stirring it until cold. Give the bird plenty of soft and green food. If the disease is of long-standing, we should give three Plummer's pills at intervals of three days. The disease is peculiar to the Shanghaes.]

LONDON MARKETS.—MARCH 24TH.

COVENT GARDEN.

There is still a good supply of all things in season. Some very fine hothouse *Grapes* have appeared during the week, and there has been a supply of *Strawberries* equal to the demand. *Cornish Broccoli* continues abundant, and there is also an excellent supply of *French Salading*. Flowers are plentiful, and consist of *Camellias*, *Mignonette*, *Azaleas*, *Roses*, *Cyclamens*, *Chinese Primroses*, and *Heaths*.

FRUIT.

Apples, kitchen, per bushel.....	3s. to 6s.
"dessert.....	6s. ,, 10s.
Pears, per dozen....	1s. ,, 3s.
Pine-apples, per lb....	8s. ,, 12s.
Foreign Grapes, per lb.	2s. ,, 3s.
Hothouse ditto, ditto	15s. ,, 30s.
Strawberries, per oz..	2s. ,, 3s.
Foreign Melons, each	2s. ,, 4s.
Oranges, per 100....	4s. ,, 10s.
Seville Oranges, do....	6s. ,, 12s.
Lemons.....	6s. ,, 12s.
Almonds, per lb.....	2s. ,, —

Nuts, Filberts, per

100 lbs.	50s. ,, 60s.
" Cobs, ditto ..	60s. ,, 70s.
" Barcelona, per bushel.....	20s. ,, 22s.
Nuts, Brazil, ditto..	12s. ,, 14s.
Walnuts, per 1000 ..	9s. ,, 12s.
Chestnuts, per bushel	15s. ,, 24s.

VEGETABLES.

Cabbages, per doz.	1s. to 1s. 6d.
" Red, per doz.	2s. ,, 4s.
Cauliflowers, per doz.	4s. ,, 6s.
Broccoli per bble....	1s. ,, 2s.

COVENT GARDEN—Continued.

Savoys.....	1s. ,, 2s.	Radishes, Turnip, per dozen bunches.....	6d.
Greens, per doz. bunch.	4s. ,, 6s.	Water Cresses, ditto ..	6d. ,, 9d.
Spinach, per sieve....	— ,, 4s.	Small Salad, per punnet.....	2d. ,, 3d.
French Beans, per hundred.....	3s. ,, 4s.	Artichokes, per lb.....	2d.
Carrots, per bunch ..	4d. ,, 6d.	Asparagus, per bundle	5s. ,, 8s.
Parsnips, per doz....	6d. ,, 9d.	Sca-kale, per punnet	2s. ,, 3s.
Beet, per doz.....	1s. to 1s. 6d.	Rhubarb, per bundle	6d. to 1s.
Potatoes, per cwt. ..	3s. ,, 6s.	Cucumbers, each.....	1s. ,, 3s.
Onions, young, ditto..	1d. ,, 2d.	Mushrooms, per pot	1s. 6d. ,, 2s.
Turnips, per bunch ..	2d. ,, 3d.	HERBS.	
Leeks, per bunch	2d. ,, 3d.	Basil, per bunch	4d. to 6d.
Garlic, per lb.	6d. ,, 8d.	Marjoram, per bunch	4d. ,, 6d.
Horseradish, per bundle.....	1s. 6d. to 2s. 6d.	Fennel, per bunch ..	2d. ,, 3d.
Shallots, per lb.	6d. ,, 1s.	Savory, per bunch ..	2d. ,, 3d.
Lettuce, Cos, each....	6d. to 8d.	Thyme, per bunch ..	2d. ,, 3d.
" Cabbage per doz.	2d. ,, 3d.	Parsley, per bunch ..	2d. ,, 3d.
Endive, per score ..	1s. 6d. ,, 2s.	Mint, per bunch	2d. ,, 4d.
Celery, per bunch ..	9d. ,, 1s. 6d.	Green Mint	6d. ,, 8d.

GRAIN.

WEDNESDAY, MARCH 19.—The arrivals are small, notwithstanding the change of wind. This morning the Wheat trade rules firm, and, in the absence of a Friday's market, some business has been made. Beans were a dull sale at lower rates. Oats attract more attention, and a fair quantity has been sold at Monday's prices. Barley and all other Grain held firmly, and realize full quotations.

WHEAT, Essex and Kent red	63s 68s —s, fine 70s —s —s
Ditto ditto white	67s 76s —s, fine 77s —s —s
Foreign, red	71s 79s —s, fine 80s 88s —s
Ditto white	76s 89s —s, fine 89s 93s —s
BARLEY, distilling	36s 37s, fine 37s 38s
Malting	39s 40s, fine 40s 41s
MALT	70s 73s, fine 73s 76s
BEANS, pigeon.....	48s 50s —s, new 41s 46s —s
Ticks for splitting	35s 38s —s, new 34s 36s —s
Harrow	47s 50s —s, new 41s 43s —s
OATS, English feed.....	20s 21s, fine 22s 23s
Scotch potato.....	29s 30s, fine 30s 32s
Irish feed white.....	20s 21s, fine 21s 22s
Ditto black	21s 22s, fine 22s 23s
Foreign feed free	20s 21s, fine 21s 22s
Poland or brew.....	23s 24s, fine 24s 25s

HOPS.

BOROUGH MARKET, THURSDAY, MARCH 20.—The demand has remained steady during the past week, and prices continue without any material alteration. Fine colour samples have become scarce.

HAY AND STRAW.

Clover, 1st cut per load	120s. to 130s.	Meadow Hay	110s. to 130s.
Ditto, 2nd cut	90s. ,, 115s.	Straw, flail	30s. ,, 33s.
		Ditto, machine....	28s. ,, 30s.

POTATO.

SOUTHWARK WATERSIDE, MARCH 17.—The late frosty weather has been succeeded by rain; the quantity of stock on hand is large, and the demand dull.

Kent and Essex Regents, 60s. to 70s.; ditto Shaws, 60s. to 70s.; York Regents, 60s. to 80s.; Lincolnshire Regents, 50s. to 60s.; Wisbeach and Cambridge Regents, 50s. to 60s.; Bedford Regents, 70s. to —s.; ditto Shaws, 60s. to 70s.; Norfolk Regents, —s. to —s.; ditto Whites, —s. to —s.; Scotch Regents (East Lothian), 60s. to 65s.; ditto (Red Mould), 70s. to —s.; ditto (Perth and Fife), 50s. to 65s.; ditto (North Country), —s. to —s.; Dahlias and Rattlers, —s. to —s.; Blues, —s. to —s.; Orkney Reds (East Lothian), 50s. to 55s.; ditto ditto (Red Mould), 60s. to —s.; Scotch Cups (Perth and Fife), 40s. to 45s.; ditto (North Country), ex-Ship, 30s. to 40s.; ditto, ex-Store, 20s. to 30s.; Irish, —s. per ton.

POULTRY.

The Easter week in Leadenhall Market is, generally, one of small supply, and decreasing trade; the quotations are for the time only, and cannot be taken as an average.

Large Fowls ..	6s. to 6s. 6d. each.	Teal.....	1s. 9d. to 2s. each.
Smaller do.	4s. 6d. to 4s. 6d. ,,	Guinea Fowl	3s. 3d. to 3s. 6d. ,,
Chickens..	4s. 0d. to 4s. 3d. ,,	Rabbit....	1s. 5d. to 1s. 6d. ,,
Goslings.....	9s. to 9s. 0d. ,,	Wild Ditto ..	10d. to 1s. 0d. ,,
Ducklings ..	4s. 6d. to 5s. 3d. ,,	Larks.....	3s. 0d. per doz.
Wild Ducks	2s. 3d. to 2s. 6d. ,,	Pigeons.....	9s. to 10s. ,,
Widgeon..	1s. 6d. to 1s. 9d. ,,		

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